MCP SERVER | NO CODE | CLOUD HOSTED

NYC Climate and Emissions Data MCP

Verify official city environmental records with your AI agent.

NYC Climate, Emissions & Environmental Data provides direct access to official municipal records. Your AI client can pull greenhouse gas inventories, heat vulnerability rankings by ZIP+4, rooftop solar locations, street-level flood sensor data, and air quality readings from the Queens pilot network. It works with any MCP-compatible client like Claude, Cursor, or Windsurf.

A+ Quality Score 98.33/100

new-york | nyc | climate | emissions | heat | flood

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vinkius.com/en/ai-agent-connect/nyc-climate-emissions-environmental-data

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

NYC Climate, Emissions & Environmental Data MCP

6 tools available
Cloud-hosted on Vinkius

You can use this MCP to pull official NYC environmental data directly into your AI agent for real-time verification and analysis. Instead of hunting through government portals, you can ask your agent to pull specific greenhouse gas inventories for the city or the municipal government from 2005 to 2024. If you are looking at neighborhood resilience, you can pull heat vulnerability rankings for specific ZIP+4 areas or check recent street flooding recorded by FloodNet sensors. It also provides access to the Queens air-quality sensor pilot for PM2.5 readings and data on rooftop solar sites across the boroughs. This is built for anyone who needs to cross-reference climate claims or environmental trends against actual city records without managing complex API keys.

Core Capabilities

01 — Emissions Tracking

Your agent pulls year-by-year GHG inventories for the city or municipal government.

02 — Flood Monitoring

The AI checks sensor-recorded street flooding events and water depths.

03 — Heat Risk Assessment

Your agent ranks neighborhoods by their heat vulnerability index.

04 — Air Quality Checks

The AI retrieves PM2.5 readings from the Queens pilot sensor network.

05 — Solar Site Mapping

Your agent searches for rooftop solar project locations and statuses by borough.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/nyc-climate-emissions-environmental-data** — connect your AI agent in three steps.

01 Subscribe to the NYC Climate MCP on Vinkius.

02 Connect your AI client like Claude or Cursor via the Vinkius interface.

03 Ask your agent to fetch specific data like GHG inventories or flood events.

04 The agent calls the tool and returns the official NYC data directly to your chat.

Vinkius hosts the MCP so you can use it immediately in your preferred AI environment.

Built For

This MCP is built for professionals who need to validate environmental data against official NYC records.

Environmental Analysts

Use the agent to pull GHG inventories and climate projections for modeling.

Urban Resilience Planners

Hand off heat vulnerability and flood event data to your agent for neighborhood assessment.

Journalists

Use the agent to verify climate or emissions claims against official city data.

What Changes When You Connect

01 Access official NYC data without needing to manage your own API keys.

02 Verify environmental claims using direct municipal records.

03 Analyze neighborhood-level risks like heat and flooding through a single interface.

04 Connect to the data once and use it across any MCP-compatible client.

Real-World Applications

Neighborhood Resilience Planning

An urban planner uses heat vulnerability rankings to decide where to deploy cooling resources.

Emissions Auditing

An analyst compares municipal GHG inventories across different years to track government footprint changes.

Flood Impact Verification

A researcher checks FloodNet sensor data to confirm specific street inundation events.

Solar Energy Research

A developer searches for existing solar sites and agency-owned locations in specific boroughs.

Patterns to Avoid

Vague environmental queries

AVOID

Asking your agent to find out if NYC is getting hotter or more flooded.

✓ INSTEAD

Be specific about the metric or location. Use rank_heat_vulnerability to get precise Heat Vulnerability Index rankings for specific ZIP+4 areas.

Broad emissions searches

AVOID

Requesting general information about New York City's carbon footprint without a timeframe.

✓ INSTEAD

Define the scope and year. Use get_ghg_inventory to pull specific greenhouse gas inventory data for a chosen year.

Unfiltered sensor requests

AVOID

Asking for all air quality data in the city at once.

✓ INSTEAD

Target specific networks. Use search_aq_sensor_readings to query PM2.5 concentrations from the Queens pilot network for specific periods.

The Right Fit

Connect this MCP if your work requires verifying environmental claims against official city records or building local resilience models. Do not connect it if you only need general climate trends or global datasets. The decision rests on whether you need granular, neighborhood-level NYC data like ZIP+4 heat rankings or specific sensor readings.

NYC Climate, Emissions & Environmental Data 6 Tools

This MCP provides direct access to official NYC greenhouse gas inventories, heat vulnerability rankings, and real-time sensor data for flooding and air quality.

#	TOOL	DESCRIPTION
01	`get_climate_projections`	This tool pulls NYC climate projection metrics for a specific future period. It returns temperature and precipitation scenarios based on selected percentile models.
02	`get_ghg_inventory`	This tool retrieves NYC greenhouse gas inventory data for a specific year. You can choose between citywide emissions or the municipal government's footprint.
03	`list_flood_events`	This tool accesses FloodNet sensor data to show recorded street flooding events. You can filter results by sensor name or a specific start time.
04	`rank_heat_vulnerability`	This tool provides Heat Vulnerability Index rankings for ZIP+4 areas. You can request the top most vulnerable neighborhoods or the rank for a specific ZCTA.
05	`search_aq_sensor_readings`	This tool pulls PM2.5 air quality readings from the Queens pilot sensor network. It provides mean mass concentrations and EPA nowcast AQI for specific time windows.
06	`search_solar_sites`	This tool searches the NYC Solar Readiness project database. You can filter sites by borough, agency, council district, or project status.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How much CO2 does the city government emit in 2024?

Using get_ghg_inventory with municipal scope for 2024, I can pull the government's specific footprint across different sectors.

U Which ZIP codes face the most heat risk?

I can use rank_heat_vulnerability to identify the top most exposed ZIP+4 areas across the city.

U Has this area flooded recently?

I can check list_flood_events using a start_after parameter to see recent sensor-recorded inundation and water depths.

Frequently Asked Questions

01 **Do I need an API key to use this NYC data?**

No. Vinkius hosts the MCP and manages all connections, so you can access the data keylessly.

02 **What kind of emissions data is available?**

You can access citywide greenhouse gas inventories and municipal government footprints from 2005 to 2024.

03 **Can I get data for specific neighborhoods?**

Yes. You can use the heat vulnerability tool to get rankings for specific ZIP+4 areas.

04 **Is the air quality data for the whole city?**

The air quality tool provides readings from a specific pilot sensor network in Queens, not the full citywide network.

05 **What AI tools can I use with this MCP?**

You can use this with any MCP-compatible client, including Claude, Cursor, Windsurf, and VS Code.

06 **Do I need an API key?**

No. NYC Open Data serves all public datasets anonymously over its SODA API (data.cityofnewyork.us). This MCP defines no credentials and needs nothing configured.

07 **What does the GHG tool return?**

For one year you get the emissions split: citywide mode gives sector-by-sector tonnes of CO2-equivalent across the whole city; municipal mode gives the city government's own footprint by main sector. Years run from 2005 to 2024.

08 **How is heat vulnerability ranked?**

Each ZIP+4 area carries a heat-vulnerability index where the higher the value, the more exposed the residents are. With a ZIP+4 the tool returns that one area; without it, the top-N most vulnerable areas in the chosen borough.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"nyc-climate-emissions-environmental-data": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

NYC Climate, Emissions & Environmental Data is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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Endpoint	`https://edge.vinkius.com/{token}/mcp`

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