

Net-Zero Data Public Utility

Request for Proposal

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Project Overview

The [Climate Data Steering Committee \(or CDSC\)](#), launched by French President Emmanuel Macron and UN Special Envoy for Climate Ambition and Solutions Michael R. Bloomberg in June 2022, brings together global regulators, policymakers, financial service providers, and civil society organizations to advise on the key data needed to support and accelerate the transition to a net-zero economy. This document is consistent with, and builds on, the CDSC's recommendations for the "Net-Zero Data Public Utility" (NZDPU or the Utility).

The RFP is being launched with the aim of identifying a technical execution team with strong engineering, data management, and product development capabilities to develop a pilot of the Utility, an industry utility that will provide a centralized repository of key climate transition-related data to allow all stakeholders to easily access and interpret climate commitments and actions taken. This team would be expected to maintain and enhance the utility overtime as the product roadmap develops post pilot release, contingent on successful completion of this pilot.

Consistent with its recommendations to date, it is anticipated that the pilot will be developed based on the following product vision:

- The NZDPU aims to become a trusted central source of verifiable data.
- The NZDPU will initially focus on standardized direct (Scope 1) and indirect (Scope 2 and 3) gross and net entity-level GHG emissions data. This initial focus will include target and carbon credit data.
- The NZDPU's flexible data model will be designed to augment transparency and, through coordination with policy-oriented bodies, will seek to align the data it offers with regulatory requirements, where possible.
- Data and statistical classifications will be open and available to the public, for all use cases, at no charge.
- The NZDPU will be operated for the sole purpose of providing the data and transparency needed to facilitate the transition to net zero.

The RFP is divided into three components: functional requirement development, technical requirement development, and general process management. Bidders can apply for the entirety of the RFP. We also recognize that not all applicants will have the capabilities to address the entirety of the RFP and therefore will allow for subcontractors to the primary applicant. A subcontracting entity will have the same requirements as the primary applicant in terms of selection criteria and will be considered as a component of the primary applicant. The primary applicant is responsible for managing the subcontractor and agreed upon work.

Project Goals

- Release a beta version of pilot of the NZDPU based on defined data models and functionality requirements by August 2023 with a release of the full pilot by 2H 2023.
- Designed and built with forward looking enhancements and maintenance in mind either by bidding entity or another group; terms TBD.

Project Scope

User types

The Utility should be designed with three broad use cases in mind to facilitate the input and output of accurate, verifiable data.¹

User Type	User Examples	Key Workflows
Data Preparer Credentialed	Public and private corporates, financial institutions, and governments (entity level)	<ul style="list-style-type: none"> • Login to profile to manage API upload credentials • Access a secure page to manually upload and edit entity structured data • Access via credentials to publish data without using web interface directly • Access via login to publish data API documentation
Data Accessor	Website, Data Hobbyist via API	<ul style="list-style-type: none"> • Quickly and easily access an intuitive search tool to find and compare entities • Lookup individual entity level data • Access to API documentation for reading data
Bulk Data Accessor Credentialed	Business, academia, and financial institutions	<ul style="list-style-type: none"> • Login to profile to manage bulk download credentials • Access via credentials to bulk APIs for data downloads

¹ All credentials mentioned in this RFP will be free and access to credentials will not be limited.

Functional Requirements

The NZDPU should include the following features:

Feature	Description
Web Interface	<p>The web interface for data lookup and exploration should be:</p> <ul style="list-style-type: none"> • Open and available to the public, for all use cases, at no charge; • Designed to display accurate, verifiable data as reported without judgment or analysis; and • User-friendly, incorporating a simple design, clear labeling, easy access to definitions, and with the intention to cater for all users.
Home Page and Basic Search	<p>Landing page that provides information on the NZDPU, how to use the utility, and a snapshot summarizing the status of reporting entities and their gross and net emissions. It should also feature a search tool with quick access filters to review and compare entities and their reported data.</p>
Coverage Pages	<p>Coverage lists of entities and links to their profiles should be provided for each entity type allowing for users to sort and identify entities of interest.</p>
Entity Profiles	<p>Profiles should provide a view into an individual entity's current and historical data.</p>
List Management	<p>Data Accessors should be able to provide a list of entities and their associated LEIs that can be used for bulk download of data and integrated into screening functionality.</p>
Screening/Bulk Search	<p>Users should be able to search for data across multiple entities through list selection or universe filtering based on geography, sector, industry, and sub-industry to be displayed in tabular form. Users will be offered key screening capabilities (i.e., ability to screen for firms that have net-zero targets, or to screen based on a GHG emissions threshold).</p>
Data Upload Portal	<p>The data upload portal should allow input users, including financial institutions and corporates (public and private), to upload their emissions, commitment, and transition plan data in a standardized entry form. The form should provide guidance and input checks to encourage consistent and accurate reporting. The data upload portal should have:</p> <ul style="list-style-type: none"> • Strict controls on data inputs and data preparer credentials (e.g., entity identifiers and multistep authentication); • Safeguards on data integrity and traceability (e.g., data linked to verifiable public sources);

	<ul style="list-style-type: none"> • Structured forms with mandatory and voluntary fields to encourage consistency; and • Formatting prompts, completeness checks, and abnormality alerts to support accuracy.
User Profile and Login	Data Preparers should be able to access a secure login to input structured data and provide source material to support data verification. Users should also be able to select certain preferences.
Help Section	All users should have access to FAQ for guidance and support on using the utility, and a contact us/support email for help or feedback.
Language	The NZDPU should allow users to change the language setting to their preferred language. While the pilot may be initially produced in English; in time, the Utility should be available in all official languages of the UN .
Accessibility	Conformance to WCAG 2.1 level AA to align with UN guidelines for web accessibility .

Technical Requirements

Requirement	Details
Capacity and Responsiveness	<ul style="list-style-type: none"> • Tens to hundreds of users per minute accessing the web interface for data lookup • 400GB of Company uploaded data to screen and provide for individual company level access • Reasonable to minimal delays for globally routed requests and responses • Sub-second retrieval time for single company data lookup • Sub ten seconds retrieval time for data screening
Cloud Infrastructure	<ul style="list-style-type: none"> • Scalable cloud infrastructure that is designed cloud-first for global cloud storage providers and has the ability to be multi-cloud with future work • Capability to build non-production environments for integration and validation testing • All components and deployments managed with DevOps best practices, using IaC (Infrastructure as Code) and CI/CD • Ability to continue operation with loss of availability zones or an entire region with minimal service degradation
Data and ETL/ELT	<ul style="list-style-type: none"> • Globally distributed storage and access • Regionally ingestible data system with process to reconcile and distribute data globally • Validation of data published based on data schema including data format, expected values, and similar checks • Capability to easily extend validation process • Defined source of truth data that can be used to recover or deploy new installations
Data Publisher	<ul style="list-style-type: none"> • Credentialed access to publish data • Ability to locally validate pre-publish data using the same validation process that is used within cloud deployed ETL/ELT process • Ability to check data to upload against known/published data • Accessible API documentation with sample code for publishing data
Data Access API	<ul style="list-style-type: none"> • Open access to search and retrieve data on companies • Credentialed access to bulk download data • Scalable access for all types of data retrieval • Accessible API documentation with sample code for credentialed access

<p>Website Design - General</p>	<ul style="list-style-type: none"> • Globally available and regionally deployed to minimize long distance data retrieval by users • Modern design with accessible and intuitive workflow for discovery of net-zero data • Pages to allow for access of single company full data, search for multiple company, and coverage transparency • Integrated feature tracking to aide in future enhancements <p>Accessible in English first with the ability to be made available in the UN official languages</p>
<p>Website Design - Data Publisher Access</p>	<ul style="list-style-type: none"> • Login prompt with MFA required • Data Upload page for manual entry of new company data for structured and unstructured (file uploads) data • Validation checks executed for structured data • Data modification page to update and append data to existing company data entry
<p>Security</p>	<ul style="list-style-type: none"> • Isolation between read and write access to all production systems • Role based access for all contributors and their expected workflows • Multi-factor authentication required for any access that enables elevated access • Protection and mitigation procedures against malicious use of system • Following GDPR standards for data protection
<p>Code Quality</p>	<ul style="list-style-type: none"> • Change tracking and revision history stored in modern tooling • Documentation around architectural and design decisions • Formatting applied using current code language standards
<p>Data Model</p>	<ul style="list-style-type: none"> • Flexible model that allows for evolution and expansion over time • Schema driven that allows for complex and nested structured data and linkages to unstructured data • LEI for entity and data association • Capability to keep data point-in-time compliant by having fata stored as it is provided • Automated data quality checks • Third party data onboarding/pipeline development
<p>Self-Accountability</p>	<ul style="list-style-type: none"> • Reporting on the total commute/storage costs if that is available via cloud reporting
<p>Supported Browsers</p>	<ul style="list-style-type: none"> • Modern browsers with a Desktop First Experience

Ownership of the application	<ul style="list-style-type: none"> The vendor will deliver services as work for hire pursuant to a service agreement and will not retain IP or other rights in the final deliverables.
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General Process Management

Project management

1. The web development should follow agile project management framework using short development cycles called “sprints” to focus on delivering requirements iteratively and incrementally throughout the life cycle. Can use any agile framework such as Scrum or Kanban.
2. Project plan should include the sprints and release cycles with details.
3. User story requirement documentation should be provided for each sprint with a sprint goal and estimates.
4. Agile development cycle should be followed, including but not limited to managing product backlog, sprints (planning, design, development, testing, release), sprint planning, sprint review and retrospective.
5. Demos or walkthrough should be scheduled and organized at the end of the sprint to showcase the work completed in the sprint.
6. Weekly status report should be provided to track the progress made on the project.

Testing and QA/UAT

The following testing types/technique should be performed:

Requirement	Details
CI/CD embedded testing	Follow CI/CD best practices with unit and integration tests, Git repository source code management, PR reviews and in-pipeline testing during development.
Manual and automated testing	Testing the overall functional capabilities of the application.
Regression testing	Testing the final version of the code before delivery to ensure that the recent code changes has not adversely affected the existing functionalities.
UAT testing	User acceptance testing to determine if the application fulfill business requirements and can be used by the end users.
Beta testing	Second phase of user testing performed by a select portion of intended audience to use the application early.

Security testing	Should be done before every release cycle focusing on testing, analyzing, and reporting every security aspect of the application.
Performance testing	System’s speed, stability, and scalability under different scenarios.
Compatibility testing	Cross browser compatibility testing to test if the web application functions seamlessly and consistently across multiple browsers on different desktops and mobile devices.

Project Phases

The project will be conducted in accordance with the following date ranges in order to meet the expected beta pilot release date and subsequent production release.

Project Stage	Description	Estimated Timeline	Deliverables
Design <i>4 weeks</i>	Design all layers of the system to be implemented in later phases	March 15 - April 7	<ul style="list-style-type: none"> • Website wireframes and user flow • Cloud Architecture • Data Model tools • Languages and Packages to use
API Accessible Data <i>8 weeks</i>	Ability to store data in multiple cloud environments and be accessible via API and passworded website	April 11 - June 2	<ul style="list-style-type: none"> • Production and Development environments in Cloud • Initial Data loaded and transformed for performant read access • Data validation tools/packages • API endpoint for reading data • Password protected website to access API read data endpoints
Data Upload <i>6 weeks</i>	Ability for logged in users to upload data via API and web form	June 6 - July 14	<ul style="list-style-type: none"> • Secure API endpoint for uploading data • Data ETL for uploaded data to read access • Credential storage and access controls for roles • Login restricted data upload • Onboard process for data uploader
Security and Performance <i>4 weeks</i>	Security and performance work to prepare for launch	July 18 - August 11	<ul style="list-style-type: none"> • Usage tracking in website • Security audit, testing, and changes • Performance testing and capacity details • Tuning systems for caching and scale

<p>Finalization and Documentation</p> <p><i>2 weeks</i></p>	<p>Cleaning up the system and fixing any outstanding bugs</p>	<p>August 15 - August 25</p>	<ul style="list-style-type: none"> • Documentation across entire system - Support, Design, and Onboarding • Any remaining issues resolved
<p>Beta Release</p>	<p>Beta Pilot NZDPU</p>	<p>August 28</p>	<ul style="list-style-type: none"> • Beta Pilot NZDPU released to select users for testing
<p>Production Release</p>	<p>Pilot NZDPU</p>	<p>2H 2023</p>	<ul style="list-style-type: none"> • Pilot NZDPU released to the public
<p>Maintenance</p>	<p>Maintain and enhance NZDPU</p>	<p>August 2023-</p>	<ul style="list-style-type: none"> • Maintenance of the NZDPU • Feature enhancements in accordance with product roadmap provided

Timeline for Response

Collecting bids from potential vendors and shortlisting the candidates is performed within the following deadlines:

Milestone	Date
RFP Released	November 7 th , 2022
RFP submissions response deadline	February 15 th , 2023
Review of responses	February 17 th , 2023 (est.)
Shortlisted candidate interviews	February 28 th , 2023 (est.)
Vendor selection	March 8 th , 2023 (est.)
Project Start	March 30 th , 2023 (est.)

Bid Structure and Requirements

Only bids containing all the below information will be considered:

Topic	Description
Bidder Description	Company name, short company description, location
Resourcing	Planned resourcing for this project with description of team member qualifications
Project Plan & Budget	Project plan with the time/cost breakdown, milestones, and expected deliverable dates
Risk Assessment	Evaluation of expected risks for the build, deployment, and maintenance of system
Project Management	Description of project management methodology
System Maintenance	Description of forward-looking plans for system maintenance
References	References and details of prior projects completed
Conflicts of Interest	Description of current and potential conflicts of interest
Business Language	Bidder must be proficient written and verbal communication in English

Selection Criteria

While the RFP is open for bids, the following principles will guide the decision to choose the best option for contract award. At this stage of the RFP process the CDSC looks to provide a high-level view of this information so that bidders can be in a better position to have a quality submission.

Completeness of RFP Response

When a response to the RFP is submitted, it should cover all the listed items under the *Bid Structure and Requirements* section. Time permitting, bidders may be notified of missing pieces, however there is no guarantee that the timeline will facilitate this, so it is important that the bid be submitted in a complete manner. Any missing requirements in the RFP response will be considered incomplete and as such the bid would not be considered appropriate for further consideration.

In addition to all bid structure and requirements being included, it is important that an appropriate amount of supporting detail be included so a well-informed decision can be made. This is not an invitation to be overly verbose in responses, but an ask to include succinct details relevant to the requirements that show why a submitter is well suited for delivery of those items listed under the *Project Phase* section of the RFP.

Applicable Experience

Due to the importance of the end deliverable, it is necessary that the experience of the bid submission entity and team have experience delivering systems that operate at a global scale. Emphasis will be given to those experiences of systems built in the cloud having public data read APIs, secure data upload APIs, and a well-designed end user interface. It is not necessary to have access provided to previous systems built, sufficient information about how they were designed, built, deployed, validated, and secured should be supplied.

Staff Capabilities and Track Record

The quality of deliverables is a direct reflection of the team and as such the selection committee look to understand the capabilities of all team members that would be part of the bid. This evaluation is more granular than the experience of the overall entity and team; to facilitate an understanding of the successes of the individuals who the bidder is proposing will be response for building out the system. With the condensed timelines for delivery, confidence in the team and that they are capable of executing quickly without the need for extended ramp up periods is important. Beyond successful deliveries of systems, understanding how those systems were built in a maintainable and extensible manner is key.

Commercial competitiveness and conflicts of interest will be considered.

Point of Contact

If you have any questions regarding the project, please contact us using the following details:

Contact Name: Simone Kramer

E-mail: skramer@nzdpu.com

Send a bid upon this RFP to rfp@nzdpu.com with the subject line **"A Bid for NZDPU Development RFP."**