**MAY 2023** 

# Green Financing Framework



# **Table of Contents**

<b>1.0</b> Introduction	3
2.0 Bloom's Approach to Sustainability	4
2.1 Bloom's Sustainability Value Proposition	5
3.0 Rationale for Issuance	6
4.0 Alignment with Market Principles	7
4.1 Eligible Projects	8
4.2 Process for Project Evaluation and Selection	10
4.3 Management of Proceeds	11
4.4 Transparency and Reporting	11
4.4.1 Allocation Reporting	11
4.4.2 Impact Reporting	12
5.0 External Review	13
5.1 Second Party Opinion	13
5.2 Assurance	13
Disclaimer	14



At Bloom Energy, we empower businesses and communities to responsibly take charge of their energy and look forward to a net zero future. Our leading solid oxide platform for distributed generation of electricity and hydrogen is changing the future of energy.

Our Energy Server is an advanced distributed energy generation platform that creates cost-effective, clean, reliable, and resilient electricity from a variety of fuels, including natural gas, biogas, and hydrogen at high efficiency and without combustion. Our distributed platform most often generates energy in proximity to where the same electricity is consumed, thus avoiding the vulnerabilities of conventional transmission and distribution lines. Our resilient platform is designed to keep electricity available for our customers through hurricanes, earthquakes, typhoons, forest fires, extreme heat, and grid failures. Unlike traditional combustion power generation, our platform is communityfriendly and designed to significantly reduce emissions of criteria air pollutants.

Additionally, our Energy Servers consume minimal amounts of water when compared to other centralized power generation sources.

The Bloom Electrolyzer supplants the conventional way of making hydrogen. In place of a dirty process that creates carbon emissions, our Electrolyzer efficiently uses uses clean electricity to split water into hydrogen and oxygen. It can be paired with zero-carbon electricity, such as that produced by solar and wind power, as well as with the zero-carbon electricity and high temperature steam generated by nuclear power operations.

Our values define who we are and shape our corporate culture. Changing the future of energy is no small task, but our diverse group of thinkers, solvers, and dreamers are up to the challenge. Driven by a shared passion for our planet, our employees design, build, and distribute unique energy solutions that transform how we power our world.

# 2.0 Bloom's Approach to Sustainability

Our business and sustainability strategy are inextricably linked. As an energy company that is a key partner to customers who are working towards their own net zero and decarbonization journeys, it is essential that our products, employees, and supply chain partners continuously work to improve outcomes for the customers and communities we touch.

We continuously evolve our ESG strategy by identifying key trends in the energy industry, understanding internal and external risks across the spectrum of our activities, and advancing the programs and policies best suited to manage those risks. We monitor new regulatory and voluntary developments to ensure that our company is responsive to prevailing policies, disclosures, and programmatic action.

To achieve our mission of energy abundance without compromises, we have shared values that power our team to create a better, more sustainable future.

#### **BE Bold**

We challenge the status quo using a considered, data-driven approach to exceed our customers' needs and solve their most complex problems.

# **BE Inspired**

Our compassion for our planet pushes us to deliver world-leading energy solutions. Our compassion and desire to do the right thing establishes trust and delivers excellence across the products we build and the customers we serve.

# **BE Agile**

We learn quickly and embrace entrepreneurship to adapt nascent ideas into best-in-class products that enable scalable, low-cost energy transformation



Our Energy Server platform is designed to be fuel flexible, capable of running on different fuels and fuel blends, quickly deployable, and moveable when using our skid-mounted design. Our modular systems are configurable to allow customers to insulate themselves against outages while working towards their decarbonization ambitions.

Value Proposition

Using the same solid oxide platform as our Energy Server, the Bloom Electrolyzer is designed to produce scalable and costeffective hydrogen solutions more efficiently than PEM and alkaline solutions. Our modular design makes the Bloom Electrolyzer ideal for use with both nuclear and renewable

power feedstocks and can be cited flexibly to efficiently serve a variety of industrial, transport, and power sector offtakers. Because it operates at high temperatures, the Bloom Electrolyzer is designed to require less energy to break up water molecules and produce hydrogen more cost effectively.

Our solid oxide fuel cells provide an electrochemical pathway to convert methane in natural gas or biogas directly into electricity without combustion. We have pioneered the cleanup of biogas on which to run our fuel cells, without the need for processing the fuel into pipeline-quality biomethane. On-site biogas use avoids the release, combustion or flaring of harmful methane.

When used as a fuel it has a similar

emission profile as natural gas but a lower, and potentially even negative, lifecycle carbon intensity.

Our fuel cell's non-combustion process already generates a relatively pure stream of  $CO_2$  devoid of nitrogen oxides, sulfur oxides, and other impurities that are difficult or expensive to separate. With the introduction of already existing exhaust processing technologies, we can isolate a >99% pure stream of  $CO_2$  that can be used or sequestered. Bloom's carbon capture system can partially or fully mitigate emissions from natural gas depending on sequestration or utilization dynamics. If paired with biogas

in bioenergy to carbon capture (BECCS) projects, carbon removals are achieved.

Hydrogen fuel cells, which convert hydrogen into electricity through a non-combustion electrochemical process, are increasingly recognized by climate experts and governments across the globe as an essential tool for full decarbonization.

As production of hydrogen becomes ubiquitous, Bloom Energy's Hydrogen Fuel Cells present another zero-carbon or renewable power generation option.



To learn more about our commitment to sustainability in all aspects of our business operations, please see our <u>2022 Sustainability Report</u>, which contains a more detailed overview of topics such as our people, our management practices, and our product's impact on the environment.

#### 3.0 Rationale for Issuance

We recognize the need for a transition towards a low-carbon society with clean, firm power and view sustainable finance as an enabling force towards that goal, both as a source of funding and as a tool for further alignment between Bloom Energy's sustainability ambitions and our stakeholders' expectations. Our intention is to further align our business strategy and corporate sustainability commitments to our financing needs.

Under the Framework, we may offer, enter into and issue bonds (notes), private placements, commercial paper, loans, working capital solutions or other debt-like financing for new and/or existing specific investments, assets and projects that adhere to the Eligibility Criteria (as defined below) (such investments, assets and projects, the "Eligible Green Projects"; and, such financing instruments, the "Green Financing Instruments").

# 4.0 Alignment with Market Principles

We have developed this Framework as per the following voluntary process guidelines, which are considered the best-practices to promote transparency, disclosure and integrity of the sustainable finance market:

- International Capital Markets Association (ICMA) Green Bond Principles, 2021 ("GBP")<sup>1</sup>
- Loan Market Association ("LMA"), Asia Pacific Loan Market Association ("APLMA"), and Loan Syndication & Trading Association ("LSTA"), and Green Loan Principles 2021 ("GLP", and, together with GBP, the "Principles")<sup>2</sup>

This Framework addresses the core components and key recommendations of the Principles:

- Use of Proceeds
- 2. Process for Project Evaluation and Selection
- 3. Management of Proceeds
- 4. Reporting

This Framework may be updated from time to time and is intended to be applied to the Green Financing Instruments issued by Bloom Energy. In the event of an update to this Framework, any future projects would be expected to be in alignment with the eligible project categories recognized by the Principles. It is our intention to follow best market practices as standards develop.



 $<sup>^1\,</sup>https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-140621.pdf$ 

<sup>&</sup>lt;sup>2</sup>https://www.lma.eu.com/application/files/9115/4452/5458/741\_LM\_Green\_Loan\_Principles\_Booklet\_V8.pdf

#### 4.1 Eligible Projects

"Eligible Projects" are investments and expenditures made by Bloom Energy or any of its subsidiaries and/or affiliates beginning with the issuance date of any Green Financing Instrument and including the 24 months prior to any such issuance that meet the eligibility criteria outlined below:

GBP Eligible Project Category	Eligibility Criteria and Example Projects	SDG Alignment
Renewable Energy	Expenditures related to the manufacturing, construction, development, acquisition, maintenance, and operation of renewable energy including:	7 ATTORDABLE AND CLUM ENERGY
	<ul> <li>Research and development for biogas, hydrogen, and bioenergy to carbon capture ("BECCS") applications</li> <li>Manufacturing and operation of biogas cleanup technology</li> <li>Manufacturing and operation of electrolyzers</li> <li>Manufacturing and operation of BECCS applications<sup>3</sup></li> <li>Manufacturing and operation of Energy Servers intended to be run with onsite or directed biogas<sup>4</sup>, or hydrogen<sup>5</sup>, or blends of renewable and conventional fuel<sup>6</sup></li> <li>Hydrogen project development<sup>5</sup></li> <li>Biogas project development from qualifying waste sources<sup>4</sup></li> </ul>	
	Expenditures related to the manufacturing, construction, development, acquisition, maintenance, and operation of low and zero carbon energy including:	
	<ul> <li>Research and development for carbon capture, utilization and storage ("CCUS"), marine, and natural gas based combined heat and power applications</li> <li>Manufacturing and operation of Energy Servers and associated equipment intended to support carbon capture, utilization and storage (CCUS) projects</li> <li>Manufacturing and operation of Energy Servers for use in a marine environment</li> <li>Manufacturing and operation of Energy Servers with natural gas based combined heat and power capability</li> </ul>	
Energy Efficiency	• Expenditures related to energy-efficiency projects based on our best efforts to ensure at least a 30% energy efficiency improvement including equipment, systems, operational improvements and maintenance, with projects to potentially include the fuel cell stack replacement program for Energy Servers running on biogas <sup>4</sup> or hydrogen <sup>5</sup> and those transitioning into full hydrogen compatibility	7 ATORDANIE AND CLEAR ENERGY

<sup>3</sup> Commercial scale BECCS projects shall have: i) <100g CO2e/kWh of emissions, ii) waste or bioenergy feedstock certified by a third party, and iii) permanent carbon storage

Bloomenergy<sup>\*</sup>

<sup>4 (</sup>i) 80% GHG emission reduction compared to fossil fuel baseline on a lifecycle basis and (ii) Biofuel must be sourced from a sustainable feedstock (e.g. source eligibility criteria issued by the California Air Resources Board for its programs as a reference standard)

<sup>&</sup>lt;sup>5</sup>To be eligible, one of the following thresholds must be met: (1) Direct CO<sub>2</sub> emissions from manufacturing of hydrogen: 0.95 tCO<sub>2</sub>e/t Hydrogen or less, or (2) Electricity use for hydrogen produced by electrolysis is at or lower than 50 MWh/t Hydrogen, or (3) The average carbon intensity of the electricity produced that is used for hydrogen manufacturing is at or below 100 gCO<sub>2</sub>e/kWh

 $<sup>^{\</sup>rm 6}\textsc{Blended}$  fuel to meet lifecycle intensity thresholds of 240gCO $_{\rm 2}\textsc{e}/\textsc{kwh}$  or below

Climate Change Adaptation	Expenditures related to manufacturing, construction, research, development, maintenance, and operation of microgrid specific componentry	13 CLIMATE ACTION
Sustainable Water & Wastewater Management	Expenditures related to water efficiency projects and wastewater management, including efficiency in water management of our electrolyzer and Energy Server systems	6 CLEAN WATER AND SANITATION
Pollution Prevention and Control	Expenditures related to reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy such as product end of life recycling activity	12 RESPONSIBLE CONSUMPTION AND PROBUCTION
Green Buildings	Expenditures related to new construction, upgrades, and build out of properties that have received or are expected to receive certified:     LEED: Gold or Platinum     BREEAM: Excellent or Above     Energy Star rating of 85 or above	9 AND INFRASTRUCTURE
Clean and Mass Transportation	<ul> <li>Expenditures related to electric vehicle or hydrogen<sup>5</sup> charging infrastructure including:         <ul> <li>Manufacture of Energy Servers with EV charging capability</li> <li>Manufacture of EV charging componentry</li> </ul> </li> </ul>	11 SUSTAINABLE CITIES AND COMMUNITIES

The Eligibility Criteria shall exclude research and development, manufacturing, and fuel cell stack replacement activities related to Energy Servers operating entirely on natural gas, to the extent not provided for above, and CCUS projects that utilize captured  $CO_2$  for enhanced oil recovery. We will allocate projects as soon as practicable.





Our Sustainability Team will identify and evaluate projects for eligibility based on the criteria described under "Eligibility Criteria". Final approval will be made jointly by our Treasurer and our Chief Financial Officer.

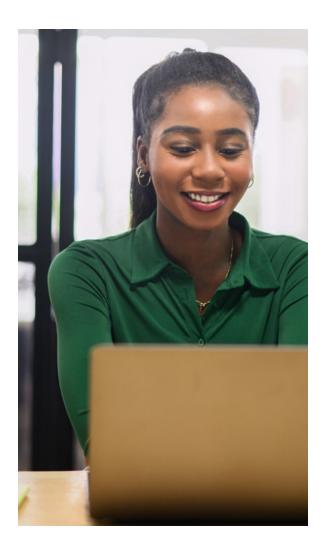
We have an Enterprise Risk Management (ERM) Committee and an ESG Committee, both of which are positioned to identify risks, provide programmatic updates, and approve actions associated with financed projects.

Bloom's ERM program promotes strong risk management practices across our organization. Bloom has established an ERM Committee, comprised of Bloom's Chief Financial Officer, General Counsel, Chief Business Development and Marketing Officer, and Chief People Officer. While the full Board has primary responsibility for risk management, the Audit Committee has responsibility for the ERM framework and risk assessment process. Both the full Board and the Audit Committee receive periodic updates on risk management activities,

including risk assessment results. A cross-functional steering committee is responsible for identifying and assessing risks and providing periodic reports to the ERM Committee.

The ERM Committee has reviewed Bloom's Green Financing Framework and will receive periodic reporting on the program, including approved projects. From time-to-time, the ERM Committee may review and recommend changes to the Eligibility Criteria.

The ESG Committee, which is comprised of cross-functional leaders from across the company is responsible for setting ESG priorities and objectives, approving strategic initiatives, and assigning responsibility for the management of emergent issues to leaders across the organization. The Committee meets quarterly and may meet more frequently as needed. This body is responsible for sharing updates with the CEO and board committees.



#### 4.3 Management of Proceeds

We have established an internal tracking system to monitor and account for the allocation of the proceeds. Pending full allocation of an amount equal to the net proceeds, unused proceeds will be invested in cash, cash equivalents or liquid securities in accordance with our investment policy. Disbursements can cover project expenditures made during the two years preceding the issue date and up to and including the maturity date of the notes.

In the case of divestment or if a project no longer meets the Eligibility Criteria, the funds will be reallocated to other projects meeting our Eligibility Criteria. Payment of principal and interest will be made from our general account and will not be linked to the performance of the projects to which amounts were allocated.

### 4.4 Transparency and Reporting

#### 4.4.1 Allocation Reporting

Annually while the notes are outstanding, until an amount equal to the net proceeds has been allocated, and on a timely basis in case of material developments, we expect to publish a Green Bond Report on our website including (i) the amount of net proceeds allocated to each category of project meeting our Eligibility Criteria, (ii) a selection of brief project descriptions, and (iii) the outstanding amount yet to be allocated to projects meeting our Eligibility Criteria at the end of the reporting period (if any). Where feasible, we may also periodically report select impact metrics that may include  $CO_2$  emissions avoided, criteria pollutant emissions avoided, and water savings.



# 4.4.2 Impact Reporting

GBP Eligible Project Category	Eligibility Criteria and Example Projects
Renewable Energy	<ul> <li>Biogas, hydrogen, and bioenergy to carbon capture ("BECCS") capacity</li> <li>CO<sub>2</sub> or other GHG emissions avoided/reduced from biogas, hydrogen, and bioenergy to carbon capture ("BECCS") applications</li> </ul>
Energy Efficiency	<ul> <li>Energy savings (MWh)</li> <li>CO<sub>2</sub> or other GHG emissions avoided/reduced</li> <li>Weighted average system lifetime efficiency</li> </ul>
Climate Change Adaptation	CO <sub>2</sub> or other GHG emissions avoided/reduced
Sustainable Water & Wastewater Management	<ul> <li>Volume of water consumption avoided or reduced</li> <li>Volume of treated or recycled water</li> </ul>
Pollution Prevention and Control	<ul> <li>CO<sub>2</sub> or other GHG emissions avoided/reduced</li> <li>Waste prevented, minimized, or recycled</li> </ul>
Green Buildings	<ul> <li>Total number of buildings certified</li> <li>Total square feet certified</li> <li>Percentage of overall company square feet certified</li> </ul>
Clean and Mass Transportation	<ul> <li>Commuter carbon Emissions (including metric tons of CO<sub>2</sub>e) avoided or reduced</li> <li>Number of Energy Servers with EV charging capability</li> <li>Number of EV charging componentry</li> </ul>





#### 5.1 **Second Party Opinion:**

Bloom Energy has requested the issuance of a Second Party Opinion ("SPO") from Sustainalytics, a recognized environmental, social and governance (ESG) research provider, on the environmental and social benefits of this Framework as well as the alignment to the Green Bond Principles. Any such SPO is expected to be available on the SPO provider's website.

#### 5.2 Assurance

Upon full allocation of an amount equal to the net proceeds to projects meeting the Eligibility Criteria, the next succeeding Green Bond Report will be accompanied by (i) an assertion by management that an amount equal to the net proceeds this offering of bonds was allocated to projects meeting the Eligibility Criteria, and (ii) either a limited review assurance report from an independent third-party in respect of its examination of management's assertions and/or a compliance review from a third party with recognized environmental expertise.

#### **Disclaimer**

The information and opinions contained in this Framework are provided as of the date of this Framework and are subject to change without notice. None of Bloom Energy, its subsidiaries or any of its affiliates assume any responsibility or obligation to update or revise any such statements, regardless of whether those statements are affected by the results of new information, future events or otherwise. This Framework represents current Bloom Energy policy and intent and is not intended to, nor can it be relied on, to create legal relations, rights or obligations. This Framework may contain or incorporate by reference public information not separately reviewed, approved or endorsed by Bloom Energy and accordingly, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by Bloom Energy as to the fairness, accuracy, reasonableness or completeness of such information.

This Framework may contain "forward-looking statements" about future events and expectations. Forward-looking statements are generally identified through the inclusion of words such as "aim," "anticipate," "believe," "drive," "estimate," "expect," "goal," "intend," "may," "plan," "project," "strategy," "target" and "will" or similar statements or variations of such terms and other similar expressions. Forward-looking statements inherently involve risks and uncertainties that could cause actual results to differ materially from those predicted in such statements. None of the future projections, expectations, estimates or prospects in this document should be taken as forecasts or promises nor should they be taken as implying any indication, assurance or guarantee that the assumptions on which such future projections, expectations, estimates or prospects have been prepared are correct or exhaustive or, in the case of assumptions, fully stated in the Framework. No assurance can be given that any goal or plan set forth in forward-looking statements in this Framework can or will be achieved, and readers are cautioned not to place undue reliance on such statements which speak only as of the date of the Framework, and Bloom Energy does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date the forward-looking statements were made.

This Framework is provided for information purposes only and does not constitute a recommendation regarding the purchase, sale, subscription or other acquisition or disposal of any debt or other securities of Bloom Energy, any member of Bloom Energy or any securities backed by a security or insurance product of Bloom Energy. This Framework is not and is not intended to be and does not form part of or contain an offer to sell or an invitation to buy, or a solicitation of any offer or invitation to buy, any such Securities. If any such offer or invitation is made, it will be done so pursuant to separate and distinct documentation in the form of an offering memorandum or other equivalent document and a related pricing term sheet (the "Offering Documents"), and any decision to purchase or subscribe for any such Securities pursuant to such offer or invitation should be made solely on the basis of such Offering Documents and not these materials. In particular, investors should pay special attention to any sections of the Offering Documents describing any risk factors. The merits or suitability of any securities or any transaction described in these materials to a particular person's situation should be independently determined by such person. Any such determination should involve, inter alia, an assessment of the legal, tax, accounting, regulatory, financial, credit or other related aspects of the securities or such transaction and prospective investors are required to make their own independent investment decisions.

