

GRANTS

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Crowdfunding
Corporate

Bingham Labs has applied for two grants that illustrate a framework for the Federal and State perspective and the second as a City perspective. We have engaged Mary Orland to establish a grant funding Arm for Bingham Labs.

June Proposal to Congressional Subcommittee (see more here)

\$3 million for an evaluation grant of the \$ 10 Billion National Experiment idea. It's Mission is to create a State Public Economic Development corporation. This has a use of Funds Template that provides \$1.5 million for 5 evaluations of feasibility, \$1 million for public discussion and \$500,000 for setting up voter approvals.

November Proposal to City of Denver (see more here)

Another \$3 million grant with a similar template is to City of Denver. This is intended to be the starting point where something happens on the ground. Its Mission is to create Special District templates that can be used by the 25 towns in the National Experiment. It can be made up of the sum of its parts to total \$3 million. \$1 million goes to a technology company to build prototype of Ai Personal Agents, \$100,000 goes to five companies to evaluate the jobs created, planning for the Colfax backbone, Transportation routes, Construction costs and Banking Models for Revenue Bonds. \$1 million goes to public discussion and \$500,000 goes to crafting a special district.



MRO LLC has been engaged to apply for a variety of grants from different sources either as the full \$3 million or a composite of smaller grants making up the \$3 million. The company is managed by Mary Orland, who has a background in law, real estate financing, grant applications and a master's degree in Statistical Analysis. She is also a concert pianist.

Grant Application Overviews

Contact Mary Orland phone (970-792-7896 email binghamlabsresearch@gmail.com or regenerationcommunities@gmail.com

Contact Information

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Company Name	Bingham Labs LLC
Website	https://www.BinghamLabs.com
Location (HQ)	715 s. Alton Way Unit 10-D, Denver, CO 80247 (temporary)
Location (R&D Lab)	815 14th Street, Loveland, CO 80537 (planned)

1. Executive Summary

Bingham Labs LLC is a clean energy and infrastructure startup focused on developing six "smart infrastructures" powered by novel electrolysis applications. Our core innovation leverages electrolysis to generate power for diverse applications including atmospheric water generation (AWG), AI data centers, carbon capture, and automated transport systems. We are seeking small grants to initiate public-private partnerships, conduct feasibility evaluations, and build initial prototypes for key technologies such as smart-grids with AI integration, modular AI data centers for small communities, and high-volume AWG units. Our business model emphasizes a unique cost structure where electrolysis significantly reduces operating expenses compared to current utility rates, offering substantial value to high-volume users in distress. We aim to collaborate with state and local governments on manufacturing and site acquisition before full commercial sales commence.

2. Company Information

One-Sentence Company Description: A research laboratory focused on developing six smart infrastructure technologies using advanced electrolysis of water to generate power for multiple applications, including water from air, energy systems, AI data centers and carbon capture, automated delivery, and passenger travel.

Industry Subsector: Clean Energy Production/Sustainable Infrastructure Development

Funding Sought: Small grants to stimulate government and big-tech collaboration for public discussions, evaluations, and joint-venture opportunities.

Financial Overview:

- Total Revenues (Last 12 Months): None (Startup phase)
 - Monthly Burn Rate (Planned): \$166,000 +/-
 - Date Founded: February 2023
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3. Proposed Activity & Use of Funds

We are seeking grant funding to initiate the evaluation, research, engineering, and prototyping phases for our initial suite of smart infrastructures. The primary goal is to establish public-private partnerships (PPPs) and secure evaluation grants that validate the feasibility and public benefit of these technologies.

Key Target Prototypes:

- Smart-grid Personal Assistants: Integrating AI with existing grid infrastructure.
- Small Modular AI Data Centers: Designed for small towns and communities.
- Atmospheric Water Generators (AWG): Models ranging from 500 gallons per day (GPD) to 25,000 GPD industrial capacity, targeting 12 identified high-volume water user categories experiencing distress.

Proposed Use of Funds (Example Activities):

- Feasibility Studies & Evaluation: Conducting engineering and economic evaluations required by government partners. We seek 5 grants for \$100,000 each to evaluate the feasibility further. 1. This grant will be for estimating the number of jobs required to build these infrastructures

including planning, engineering, public debate, funding, construction and operations. 2. This one will be for planning and design of the 6 hot spots in our Legs 1 and 2 which is the “Proof of Concept” backbone 3. This grant will be for building and evaluating two demonstration models for “Atmospheric Water Generators and putting them in highly visible locations in Denver’s Platte Valley. 4. \$. This evaluation grant will look at the construction costs and update out old models as far as the money lasts. 5. This grant will either start or pay off Bank funding of digital models used for Revenue Bonds funding. Each \$100,000 consultant will get one of our Smart grid Personal Agent tablets to summaries and share their work.

- Public Engagement: This will be a \$1,000,000 grant to seek public feedback on our ideas for smart Infrastructure. This grant will organize public discussions and debates with the voter base and stakeholders to educate and gather feedback. This will consist of weekly podcasts introducing a topic, then asking for feedback which is stored in the cloud and available for public to see.
- Prototype Development: This grant will be for \$1,000,000 for Building initial working models of each smart infrastructure starting with the AWG and AI Smart-grid technologies, then an Ai Holographic model.
- Partnership Structuring: This grant will be for \$500,000 to finalizing legal and financial frameworks for proposed state government partnerships and the "Special District Template" financial model for Denver and other municipalities.

4. Strategic Partnerships & Collaborations

Bingham Labs views this activity as an economic development initiative requiring extensive collaboration. We are actively pursuing several key partnerships:

- Legislative Engagement: Submitted an application to the U.S. Congress for an evaluation grant of the transport technology. This needs Letters of Support and a matching funds grant to induce Congress to consider our application. (reference: Useof3milforEvaluation.pdf).
- Local Government Proposals:

Submitted a \$3 million grant proposal to the Downtown Denver Development Authority (reference: <https://www.binghamlabs.com/ComcastAIPersonalAssistants.pdf>).

Offered the City of Denver a partnership to develop a standardized financial model ("Special District template") for subsequent communities.

- State-Level PPPs: Proposed a 50/50 Public-Private Partnership plan to the Governor, offering states a 25% share of profits from joint sales and collaboration on establishing a state agency to regulate "air rights" for resource extraction (e.g., water vapor, carbon).
- Industry & Voter Outreach: We plan to find buyers and educate stakeholders via direct mail, trade shows, podcasts, and ongoing website publications detailing proposals to Big Tech, national banks, and elected officials.

5. Business Model & Innovation

Business Model: Research and develop the foundational "building blocks" of smart infrastructure. Our focus areas are:

- 1.Utilizing electrolysis for localized power generation within each technology.
- 2.R&D for AI prototype applications, starting with the smart-grid.
- 3.Developing economic models for pricing, subscriber needs, and costs.

We rely heavily on public education through podcasts and emails to inform voters and politicians, stimulating public debate before commercial rollout.

Unique Innovations & Competitive Advantage:

- Cost Efficiency via Electrolysis: We believe integrating various forms of electrolysis (fuel cells, hydrogen engines) can drastically reduce operating costs compared to current expensive grid power.
- Synergy and Co-location: All six technologies are designed to share a common 25'x25' corridor easement, creating operational synergy.
- AI Integration: Adding AI management ("Agentic Automation") to operations enhances productivity, security, and complexity management (e.g., AI Personal Assistants).
- Sustainable Financial Model: Our models rely solely on private capital investors seeking superior profits and economic stimulation, avoiding reliance on taxation or government guarantees.

6. Product Development Status & Milestones

Development Stage: Startup venture. We have established foundational materials (websites, pitch decks, business plan, legal documents, lab space identified) and are actively fundraising. No significant customer conversations have taken place yet.

Product Status:

- Smart grid/AI: Proposing R&D partnerships with Internet/cell providers. Focus is on adding a novel "Agentic Automation" AI layer to existing smart-grid concepts.
- Oasis Machine (AWG): Conceptual stage. Value proposition centers on a single capital expenditure providing 10-20 years of water supply, drastically undercutting ongoing water utility costs for high-volume users (e.g., a data center potentially saving over \$100M annually).
- Carbon Capture: Utilizing learnings from the AWG machine with different filters.

Next Milestones:

We plan to develop our infrastructures in three coupled pairs:

Pair 1: Smart-grid & AI Media Factories: Develop prototypes for AI-driven smart-grids and private fiber optic systems/holographic media display.

Pair 2: Oasis Machine & Carbon Capture: Build AWG prototypes and adapt the technology for carbon capture with a minimal learning curve.

Pair 3: Automated Transport (Passenger & Cargo): Explore electrolysis application for decarbonizing commercial vehicles (vans, trucks) and developing shared guideways for both passenger and cargo autonomous transport.

Milestones & Deliverables (First Six Months)

Milestone 1 — Organizational Launch

- Core team contracted
- Laboratory and office operational
- Research library framework established



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- **Bingham Labs — Clean “Use of Funds” Section for EPA Grants**
- **Project Purpose**
- Bingham Labs seeks federal support to establish a multidisciplinary research and demonstration program focused on **clean hydrogen production, wildfire-resilient infrastructure, water recovery technologies, and AI-enabled environmental planning tools**. The initial six-month phase will build the organizational, technical, and community-engagement foundation required to accelerate deployment of climate-positive technologies across Colorado and the Western United States.
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- **Use of Funds (First Six Months)**
- **1. Core Staffing and Technical Leadership — \$230,000**
- Funds will support the recruitment and contracting of the core technical and administrative team required to launch the program:
- **Electrolysis & Hydrogen Systems Director** – leads laboratory research, electrolyzer testing, and fuel-cell evaluation.
- **Information Technology & AI Systems Manager** – deploys AI tools for modeling, training, and public education.
- **Grant Development Lead** – manages federal, state, and foundation submissions.

- **Planning & Infrastructure Director** – develops environmental planning models, guideway layouts, and wildfire-mitigation mapping.
- **Research Library Manager** – curates a digital knowledge base of environmental, hydrogen, and infrastructure research.
- **Outreach & Partnerships Staff** – coordinates engagement with local governments, universities, and community groups.
- Additional administrative and research staff will be added as funding allows.

- **2. Laboratory & Office Establishment — \$70,000**

- Funding will support the build-out of a small laboratory and office environment, including:
- Workstations, desks, and collaborative meeting space
- Demonstration area for hydrogen and wildfire-mitigation technologies
- Podcast and public-education studio
- Storage, shelving, and safety equipment
- Large-format displays for technical presentations
- The lab will be located within an established business incubator in Loveland, CO, with a small administrative office in downtown Denver.

- **3. Equipment Acquisition for Hydrogen & Environmental Research — \$230,000**

- To accelerate early-stage testing and validation, Bingham Labs will acquire:
- **Two to three existing Electrolyzer units** (500–3,000 gallons/day) for benchmarking



- **Associated fuel-cell systems** for performance evaluation
- **Laboratory software** for data collection, modeling, and safety management
- **Computing infrastructure**, including servers and networking equipment
- **Tools, chemicals, and machined parts** required for prototyping and testing
- These assets will support EPA-aligned research into clean hydrogen production, water recovery, and emissions reduction.

- **4. Public Education, Outreach & Environmental Communication — \$300,000**

- EPA strongly emphasizes community engagement and public understanding. Funds will support:
- **AI-generated educational narration** for hydrogen, wildfire mitigation, and environmental planning
- **Animations** illustrating clean-energy stations, data-center efficiency, and fire-mitigation systems
- **Weekly environmental podcasts** featuring courseware on hydrogen, water systems, and climate resilience
- **Events, workshops, and conferences** to engage local governments, water districts, and community partners
- **Website development and public-facing materials**
- **Social-media monitoring and communication** to track public concerns and emerging environmental issues
- These activities build public literacy around hydrogen, wildfire mitigation, and sustainable infrastructure.

- **5. Research Library & Knowledge Infrastructure — \$75,000**

- Funds will establish a cloud-based environmental research library containing thousands of curated documents, including:
- Peer-reviewed studies
- Federal and state reports
- Technical standards
- Environmental impact assessments
- Hydrogen and electrolysis research
- Wildfire-mitigation and water-recovery literature
- The library will support researchers, policymakers, and community partners, with a future subscription model planned to ensure long-term sustainability.

- **6. Planning, Engineering & Demonstration Development — \$337,000**

- This category includes:
- **Engineering of small-scale utility engines** for hydrogen and clean-energy demonstrations
- **Environmental modeling and feasibility analysis**
- **Demonstration systems** for wildfire mitigation, hydrogen production, and clean-energy micro-infrastructure
- **Procurement of specialized components**
- **Travel to laboratories, universities, and field sites**

- **Conference participation** to coordinate with national experts
- These activities directly support EPA goals related to emissions reduction, wildfire resilience, and clean-energy deployment.

- **7. Administrative, Legal & Compliance Costs — \$123,450**

- To ensure responsible stewardship of federal funds, the budget includes:
- Accounting and reporting
- Legal review and contracting
- Insurance and liability coverage
- Internet, communications, and office operations
- Required fees and taxes

- **Total Six-Month Budget: \$1,065,450**