

Proof of Concept for Revenue Bond Financing

Funding Model for Smart Infrastructure Systems – Legs 1 & 2

1. Overview

This Proof of Concept outlines how five Smart Infrastructure technologies—Smart-Grid AI Personal Agents, AI Media Factories, Atmospheric Water Generation, Carbon Capture, and Transportation—can be financed through Revenue Bonds, beginning with Legs 1 and 2 of the corridor (Platte Alley and Colfax to Golden).

Each technology is modeled as a \$100 million capital project, financed through a dedicated revenue bond similar to a 30-year, 3% mortgage. Skyways, due to its scale, will require a bond five times larger and is addressed separately.

Once public discussions lead to a formal State–City partnership, each technology can be constructed using this standardized financing template.

2. Revenue Bond Structure

- Bond Size: \$100 million per technology
- Term: 30 years
- Interest Rate: Approx. 3%
- Annual Debt Service: \$5,059,248 (first money out)
- Ownership: Upon retirement of the bonds, the State owns 100% of the infrastructure assets.

This structure provides predictable returns to bondholders while enabling the State to acquire long-term strategic infrastructure without raising taxes.

3. Example: Smart-Grid AI Personal Agents

Population Base

- Estimated 1,000,000 residents within one mile of Legs 1 and 2.

Subscriber Revenue

Assume:

- 10% adoption within 5 years
- Subscription price: \$100/month

This yields:

- Annual revenue: \$120 million
- Profit margin assumption: 15%
- Annual surplus available for debt service + dividends: \$18 million

Additional Revenue Streams

- Pay-per-use customers (likely exceeding subscription revenue)
- Commercial AI applications emerging after year 3–5
- Higher complexity
- Higher margins
- Larger transaction volumes

By year 10, profits could reasonably double as adoption accelerates and commercial markets mature. Over 30 years, this becomes a major revenue engine for capital partners, the State, and the technology builders.

4. Profit Distribution Model

After operating expenses and debt service are paid, surplus cash flow is distributed as follows:

- Bondholders:
 - Receive guaranteed debt service
 - Plus an estimated additional 5% return during early operations (based on a 10% ROI projection in the first 5 years)
- Remaining Surplus (50/50 split):
 - State of Colorado
 - Compensation for operating authority, rights-of-way, and regulatory support
 - Developers / Prime Contractors / Bingham Labs
 - Compensation for innovation, construction, and long-term system management

This structure aligns incentives and ensures that public and private partners benefit proportionally from system performance.

5. Revenue Potential Across All Technologies

AI Media Factories

- Expected to be the largest profit center
- High-value content production
- Strong commercial demand
- Scalable across multiple markets

Atmospheric Water Generators

- Moderate but steady profitability
- Solves a critical global resource challenge
- Strong ESG and federal funding alignment

Carbon Capture

- Similar to AWG:
- Moderate profits
- High environmental value
- Strong federal incentives

Transportation

- Required to support all other systems
- Revenue model similar to Smart-Grid and Media
- Larger capital requirement
- Long-term, stable revenue base

Bottom line: Revenue bonds are both feasible and flexible, capable of supporting diverse infrastructure types within a shared corridor.

6. Banking Consortium and Scaling Plan

Bingham Labs is assembling a five-bank consortium to jointly finance each \$100 million Revenue Bond during the Proof-of-Concept phase for Legs 1 and 2.

Next Phase Scaling

- Each technology will expand to a \$1 billion Revenue Bond
- Transportation will require \$5 billion or more, depending on demonstrated revenue performance
- Skyways will require a bond five times larger than the standard \$100 million model

This phased approach allows investors and public partners to validate performance before scaling to full corridor deployment.

7. Conclusion

The Revenue Bond model provides a no-tax, self-funding pathway to build Colorado's next-generation Smart Infrastructure corridor. With predictable debt service, strong projected revenues, and equitable profit sharing, this approach positions the State, private partners, and the public to benefit from decades of economic growth.

Bingham Labs is prepared to advance this Proof of Concept with the State, the City, and the banking consortium to demonstrate feasibility, validate revenues, and launch the first national model of integrated Smart Infrastructure.

