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The Honourable Nate Horner, M.L.A.
President of the Treasury Board and Minister of Finance
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Dear Minister Horner;

I am writing to propose that the Government of Alberta explore the development of a wealth-backed cryptocurrency, tentatively named the "Alberta Buck," to serve as a stable and secure alternative to traditional forms of money for Alberta citizens and businesses.

Executive Summary

Trust in central bank monetary policy is declining, and access to capital for personal, business and government budgets is tightening, while inflation is perceived to be much higher than reported. The Alberta Buck could provide an alternative to debt for liquidity.

This initiative is legally feasible and can be implemented using a framework similar to "Title Loans," where the borrower's assets serve as collateral. The legal framework for such loans is primarily governed by provincial and territorial regulations in Canada.

The Alberta Buck would be a cryptocurrency whose value is pegged to a basket of Alberta's commodities, goods, and services. Its issuance and withdrawal would be dynamically adjusted based on measured inflation/deflation, using algorithms like PID loops. This process would be automated and tamper-proof, without any centralized control by individuals or governments.

The ability to *transfer* Alberta Bucks efficiently for payments, and the ability of citizens, businesses, and the Alberta Treasury to *create* Alberta Bucks backed by their owned wealth, would allow for interest-free money creation and the retirement of interest-bearing debt.

Background

I am an Alberta born, trained and raised software, hardware and physical systems researcher with 40 years of experience. The Enbridge Pipelines control and monitoring

communications system was designed and implemented by me, and has been used for two decades to monitor and control millions of cubic meters of Alberta's hydrocarbons delivered over thousands of kilometres of pipeline throughout North America. My digital signal processing software is being used to read Alberta's utility gas meters from aircraft and ground vehicles. I've been working on industrial distributed systems, automation and cryptographically secured monetary systems since before 2009 when Bitcoin was invented. You can see more background about me on the Alberta job postings website.

Why now?

Fixed-issuance global-consensus cryptocurrencies are often proposed as a solution for sound money. They are not. They are an alternative for already existing liquidity; what we propose is a way for Albertans to convert existing illiquid wealth into sound money.

Critical vulnerabilities *prevent* global-consensus systems from being used as a reliable replacement for money. This design, underpinning most cryptocurrencies using both public blockchains (Bitcoin, Ethereum, etc.) and permissioned ledgers (most CBDCs, Hashgraph, Ripple, etc.), while powerful and elegant, <u>is not capable</u> of maintaining Consistency and Availability in the face of inevitable network Partitions (CAP theory).

These widely known but little understood problems simply *do not allow* these systems to safely and securely take the place of "money". These same problems plague distributed systems like those used to monitor and control large-scale physical systems such as pipelines. I had been researching and working on solutions to these problems since 1995, when I worked at Hewlett Packard's R&D centre in Calgary, but without success.

Then in 2018, the architects of the Holochain and Holo projects published a paper claiming general solutions to these problems. This was so shocking that I immediately joined the project to verify their claims.

I believe their claims are indeed valid, and these solutions now allow us to build and deploy distributed systems including cryptocurrency based systems at a global scale, without the fatal problems dooming most global-consensus ledger-based systems.

Combining these distributed system breakthroughs with the monitoring, control and automation systems we already know and use, and simple, well-understood and legal monetary principles already underpinning mortgages and title loans, and the powerful cryptographic primitives used to implement public key cryptography, zero-knowledge proofs and homomorphic encryption, we can now implement universally accessible, unstoppable and value-stable cryptocurrency systems backed by personal, corporate and community wealth.

Why an Alberta Buck?

Central-bank monetary systems are now perceived to be corrupted to the point where consumer price inflation and the public perception of greed, incompetence and even malice threatens to lead to unrest and perhaps even public revolt.

I am aware of multiple nations and US states that are *currently* in serious debate and planning to implement Community Currencies, or allow gold/silver money as a stop-gap measure should state action be necessary in the face of serious hardship or collapse of confidence in their national currencies.

Alberta is uniquely positioned to lead in this area due to our substantial provincial wealth and capable citizenry. We could provide a "lifeboat" to our entire nation, and perhaps even the citizens of other nations not so richly blessed as we are.

Why us?

We Albertans have a unique combination of ability, opportunity and capability to accomplish this important task. It sometimes falls to a simple people to do something difficult and even dangerous. Rarely, they *also* have brave and capable leadership at that opportune moment.

I sincerely believe we, **now**, in Alberta, have all these things. For this purpose. While powerful people in Canada and abroad may not be happy, I believe we must act decisively for the citizens of Alberta and Canada, and perhaps for the world.

What's next?

I have <u>educated</u> about and <u>written articles</u> <u>detailing</u> many of these ideas, and written several of the <u>models</u> and prototypes of the mutual-credit "HoloFuel" cryptocurrency to be deployed in coming months when the Holo project goes live. I have deployed the <u>SLIP-39 protocol App</u> for securing cryptocurrency wallets, and designed and implemented innovative Ethereum Virtual Machine smart contracts.

I am now convinced that architecting and prototyping an asset-backed, value-stable, dynamic issuance mutual-credit based Alberta Buck cryptocurrency can proceed rapidly if a small, capable team of researchers and monetary experts is assembled. Correctly framed and deployed, the Alberta Buck could become a valuable option for Albertans in turbulent economic times, and part of Alberta's firewall against government over-reach.

Please reach out to me at your earliest convenience. I can bring together international leaders who are working on precisely these problems for other jurisdictions, very quickly, to accelerate Alberta's mastery of this important issue.

Sincerely,

Perry Kundert