Memorandum of Support

March 17, 2022

S.6486-D (Parker) / A.7389-C (Kelless)

Title: An act to amend the environmental conservation law in relation to establishing a moratorium on cryptocurrency mining operations that use proof-of-work authentication methods to validate blockchain transactions; and to require a comprehensive generic environmental impact statement review to ensure such operations do not conflict with the goals of the 2019 Climate Leadership and Community Protection Act.

Statement in support: When the State of New York enacted the Climate Leadership and Community Protection Act (CLCPA), the vision of an emissions-free grid by 2040 and a carbon neutral society by 2050 did not factor in the obstacles created by fossil fueled cryptocurrency operations. Cryptocurrency – which can come in many forms like Bitcoin, Litecoin, Ethereum, Ripple, Stellar (etc.) is a digital asset designed to serve as an alternative currency, without a third party validator (like a bank or country) where individual coin ownership records are stored in a computerized database. The technology uses strong cryptography to secure transaction records, control the creation of additional coins, and verify the transfer of coin ownership. While this technology is making some wealthy investors richer and some forms may hold promise for future beneficial blockchain applications, the process in other forms, like Bitcoin, can be incredibly energy intensive and could derail NY’s climate goals if not carefully regulated or banned.

The most environmentally pernicious form of cryptocurrencies are those that require validation using the “Proof of Work” method. Proof of Work cryptocurrencies, like Bitcoin, require their validators to expend significant energy solving an arbitrary mathematical puzzle in order to both prevent interlopers from gaming the system and to validate transactions. This enormous energy consumption is by design. Not only does it take powerful and specialized computers to solve the required algorithm, but it takes warehouses full of these electronic “miners,” resulting in increased energy expenditure.

By some estimates, the Bitcoin network consumes as much energy as entire countries like Argentina and Norway. The Chinese Government has recently banned both Bitcoin mining and trading because the practice is making it difficult for them to reach their greenhouse gas reduction goals. It is estimated that Chinese miners were responsible for 60% of the 120 terawatts of electricity consumed globally by Bitcoin. That amount is comparable to the entire energy consumption of a country like New Zealand. And with China rejecting the industry, dormant and underutilized fossil fuel plants in the US with cheap behind-the-meter power are becoming targets.
Several major corporations have been looking to exploit loopholes in New York's regulatory structure by targeting retiring, retired, or peaking power plants for data centers, Bitcoin mining, and the like. While the Public Service Commission (PSC) regulates grid-tied power plants, energy-consumptive Proof of Work Bitcoin mining facilities can absorb a generating plant's entire electrical output – off-grid and 'behind the meter' – evading PSC oversight. In the case of the recently converted coal plant “Greenidge” in Dresden, NY, the new gas turbines now run 24 hours a day, 7 days a week – with an output sufficient to power 93,000 homes – just to produce 5 Bitcoins a day. This under-regulated activity, with no discernable public benefit, has an enormous carbon footprint, and with proposals now spreading to other sites across NY we fear it could significantly undermine the emissions reduction goals of the CLCPA. In fact, if the gap in regulation for behind-the-meter cryptocurrency operations is not closed by the legislature, this kind of digital partnership could be an integral part of every power plant operating in NY – which could profoundly impact environmental justice communities, their air quality and the affordability of electricity.

A.7389-C/S.6486-D will establish a 2-year moratorium on the operation of cryptocurrency mining operations attached to fossil fuel facilities in NY, until a full generic environmental impact statement has determined whether such operations can be mitigated to comply with the CLCPA. Passing this bill is imperative, this session. By this time next year, there could be hundreds of unregulated data centers, paired with dirty fossil fuel facilities in NY claiming vested rights for their cryptocurrency operations if the legislature fails to act.

Sierra Club urges your support of this important legislation that will close the regulatory gap for cryptocurrency.