Q Please state your name, place of employment, and position.
A Paul Brewbaker, Economist and Principal, TZ Economics.

Q What types of services does TZ Economics provide?
A TZ Economics is a Hawaii consultancy doing development impact analysis and other private sector economic research and analysis.

Q Please describe your educational background and professional experience.
A My resume is attached as an exhibit in this proceeding. My private sector background is in research on the Hawaii economy and financial risk analytics at Bank of Hawaii from 1981-2009, as a consultant and a commercial bank economist. I was also a university lecturer from 1980-2017. I am a graduate of Stanford, did graduate work at Wisconsin, and I received my PhD from the University of Hawaii, all in economics.

Q What has your firm been retained to do for this project, Kalae (Block B)?
A Victoria Ward, Ltd. requested that I provide an analysis and conclusions regarding Kalae’s economic impacts and benefits in the current economic environment. My analysis and conclusions are contained in a report dated August 16, 2021 with addendum dated May 6, 2022 (“Report”), which is attached as an exhibit in this proceeding, and summarized below.

Q Why are the Project’s economic contributions important?
A Kalae will deliver approximately 330 new housing condominium units, 19,282 square feet of ground-level space, 71,689 square feet of recreational area, and 2,144 square feet of ground floor commercial space.

Significantly, the development will materially contribute to Hawaii’s Covid-19 economic recovery and sustain post-recovery growth. Hawaii entered recovery in 2020 from the lowest position among the fifty U.S. states relative to its own peak at end-2020. Post-pandemic economic recovery has not been uniform (monotonic) but uneven. This underscores the significance of the economic benefits from Kalae development.
Q Please describe your analysis and conclusions.

A Kalae will have a direct, continuing, and unbroken positive impact on the State of Hawaii and City and County of Honolulu economy. Using the State of Hawaii’s input-output model,\(^1\) estimated multi-year development impacts of the Kalae project, in present values from 2018-2026 are (Report, Table 1.):

- $606 million in output in current dollars, or $578 million in constant, 2021 dollars.\(^2\)
- $198 million in workers’ earnings ($189 million in constant dollars).
- $37 million in state tax revenue ($35 million in constant dollars).
- An annual average of 373 jobs over eight years, peaking at 949 jobs in 2024.

Over 30-year period beginning in 2026, in present values of constant 2021 dollars:

- Kalae operations and maintenance will generate $148 million in future output, $49 million in earnings, $9 million in state tax revenues, and an annual average of 20 jobs. (Report, Table 2.) These estimates are revised downward from those introduced in section 4.14 of the PDP application because of an additional refinement in the analysis methodology.

- Kalae will accrue $127 million in future county residential property tax revenues, with an upper bound of $138 million and a lower bound of $117 million, based on historical volatility of home price appreciation. (Report, Table 3.)

- Over a 50-year period beginning in 2026, Kalae will accrue $198 million in present value real residential property taxes, ranging from an upper bound of $214 million to a lower bound of $182 million, based on historical volatility of home price appreciation. (Report, Table 3.)

\[^1\] [https://files.hawaii.gov/dbedt/economic/reports/IO/2017_state_io_study.pdf](https://files.hawaii.gov/dbedt/economic/reports/IO/2017_state_io_study.pdf)

\[^2\] The consequences of inflation on estimated economic impacts are removed from the outset, and past and future values are discounted to the present as of 2021. Under this approach, more recent events like unanticipated inflation, supply chain disruptions, or geopolitical risk associated with the war in Ukraine do not have a material impact on the estimated economic benefits of Kalae. The PDP application, based on my earlier analysis, cites impacts couched in present values of current as well as in constant, 2021 dollars, as in my report and in this testimony.