Memorandum

To: ISO Board of Governors

From: Dede Subakti, Vice President, System Operations

Ryan Seghesio, Chief Financial Officer & Treasurer

Date: December 9, 2021

Re: **Decision on ISO settlement system upgrade project budget**

This memorandum requires Board action.

EXECUTIVE SUMMARY

Management seeks approval from the ISO Board of Governors for funding to upgrade the existing ISO settlement system as well as replace aging technology infrastructure.

Every week, the ISO settles between $60 and $219 million dollars of market transactions, and in 2020 that totaled $11.4 billion dollars. In order to achieve this, the ISO settlement team must process between 18 and 51 trade dates each week, as mandated by our tariff. This results in roughly 31,000 system files being published to 585 market participants weekly. With the current settlement system, it takes between three and seven hours of work to process each trade date leaving very little room for error, and as a result, the ISO is sometimes challenged to meet the tariff-defined statement publishing deadlines. As we look toward a future with more market participants, new customer types, new market products, and an expanded ISO footprint it is time to address the shortcomings in the current settlement system, failing to do so would be too risky to the ISO and our stakeholders.

Management recommends the following motion:

> *Moved that the ISO Board of Governors approves the capital project budget of $15.6 million for the ISO settlement system upgrade project as described in the memorandum dated December 9, 2021.*

DISCUSSION AND ANALYSIS

The settlement system space has grown progressively over the last decade to meet the growing needs of the ISO. With the implementation of over a hundred policy initiatives and market enhancements since the initial settlements application was designed, the end product is an application set that is nearing the end of its shelf life with respect to scalability, performance, and usability. The purpose of this project is to provide a robust and scalable settlements application that upgrades the existing settlements application and consolidates multiple other applications that support the current settlements.

This project will migrate the existing settlement applications, plus the functionality of many external tools into an upgraded ISO settlement system.

The upgraded ISO settlement system will:

- Process large volumes of settlement and market data in a reasonable time period including accommodating the need to re-process settlement runs due to data or technical errors and still meet settlement timelines for customer delivery

- Perform parallel processing and publication of statements and invoices

- Calculate and analyze market, settlement and meter data across time horizons to perform analysis within the settlements system

- Increase transparency of some calculations to customers

- Create and run data validation scripts within the system; and

- Simulate calculation results based on input changes and gather settlement data; needed for impact analysis for dispute resolution, legal requests, market monitoring, and regulatory data requests

The implementation of this project will be systematic and transparent to market participants and the vendors they collaborate with. Close cooperation and communication will enable the ISO to begin to leverage the new solution as soon as possible, without overburdening our market participants.

BUDGET

The budget amount requested in this memo will be for the entire capital project and is inclusive of the contract amount. The large size of this project warrants carving it out separately from the overall 2022 capital project budget which is set at $20 million.

The cost of the project will be funded entirely from capital reserves on hand. Capital reserves come from cash-funded capital collected as part of the annual revenue requirement. There is no negative impact to the revenue requirement and resulting grid management charge rates.

CONCLUSION

The ISO's settlement system is a critical operations and customer support system. The ISO has evaluated our business and technical requirements to support the implementation of an upgraded settlement soluiton. An upgraded system must meet user-specific requirements for functionality, performance, usability, and accessibility. It must also meet technical requirements, such as scalability, flexibility, manageability, and security. Management recommends the Board approve a capital budget of $15.6 million for the settlement upgrade project.