





In this petition, NERC (1) describes the security and technology considerations supporting the development of the ERO SEL as a separate tool within the Align project; (2) outlines the funding strategy to pay for the ERO SEL; (3) seeks Commission approval to expend up to \$3.8 million toward the development of the ERO SEL, which includes the proposed \$1.8 million expenditure from operating contingency reserves; and, (4) requests that the Commission issue an order by July 8, 2020, without issuing a tolling order, as permitted under Paragraph 7(b)(ii) of the Settlement Agreement in Docket No. FA11-21-000.

## **II. NOTICES AND COMMUNICATIONS**

Notices and communications with respect to this filing may be addressed to the following:<sup>3</sup>

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## **III. DESCRIPTION OF THE PROPOSED ERO SEL INVESTMENT**

Since 2014, NERC has been working closely with the Regional Entities to develop more consistent processes and approaches to the CMEP, including evaluating and implementing strategic investments in tools that will replace the various CMEP manual processes and applications used by members of the ERO Enterprise with a single, common business application, known as the Align project. The objectives of the Align project include (1) a single, common portal and experience for Registered Entities through the Align tool; (2) improved integration of and access to compliance-related data, (3) increased analytics; and (4) standardized business processes and consistent application of the CMEP. The Align project will result in increased security,

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<sup>3</sup> Persons to be included in Commission's official service list are indicated with an asterisk.

productivity, and reduced application costs across the ERO Enterprise. NERC envisioned three releases for the Align project, beginning in the last quarter of 2019.

In August 2019, the ERO made the decision to delay the first release of the Align project in order to address Registered Entity concerns regarding data security. These concerns were triggered by a change in ownership of the software provider for the Align tool. Given the ever-evolving threat landscape, the ERO Enterprise understood and shared those concerns. To demonstrate its commitment to the security of all information associated with CMEP activities, NERC took the time to engage in significant forensic research and availed itself of other avenues to understand any security risks associated with the new owner of the Align tool software and any approaches to mitigate them. NERC confirmed that the security approaches planned for the Align tool, including encryption with customer-controlled keys, strong access controls, regular software validation, along with some process enhancements and controls, mitigated the risks associated with the new ownership. NERC concluded that the underlying software for the Align tool remained viable and secure. NERC shared this conclusion with Registered Entities through several meetings and secure briefings.

NERC determined that the Align project could be enhanced by segregating the “raw” data collected as evidence from ERO Enterprise work papers managed in the Align tool. In other words, certain Registered Entity data, especially the highly sensitive Bulk Electric System Cyber System Information, should be maintained in a system separate from the Align tool, with strong security controls. To that end, NERC and the Regional Entities began to evaluate the use of an evidence locker in the third quarter of 2019. Use of an evidence locker is a practice already in place in at least two Regional Entities to collect evidence associated with Critical Infrastructure Protection Reliability Standards.

During that timeframe, the ERO Enterprise also engaged Registered Entities, including members of the NERC Compliance and Certification Committee (“CCC”), to discuss security concerns surrounding evidence collection. This Registered Entity coordination occurred through multiple working sessions, technical briefings, and secure briefings. Additional discussions will continue to happen as necessary to address security concerns and ensure that the ultimate ERO SEL deployed meets the highest standards. These discussions enabled the ERO Enterprise to conclude that it did not need to collect the raw evidence from CMEP activities in the Align tool. Rather, NERC could collect raw evidence in a separate environment that would facilitate increased security for the duration of a CMEP oversight engagement. Together, the ERO Enterprise and Registered Entities evaluated the attractiveness and suitability of an evidence locker technology approach, separate from the Align tool. Registered Entity evidence would be submitted and maintained in the secure evidence locker, separately from the documents generated by the ERO Enterprise CMEP staff.

The ERO Enterprise considered a range of alternatives for accessing critical Registered Entity data, such as evaluating all such data on Registered Entity premises, or alternative technology structures such as Regional Entity or geographic-based evidence lockers, and concluded that these alternative would be more costly and difficult to administer. A centrally managed evidence locker, the ERO SEL, with separate access, protocols, and compartments for each Regional Entity’s work, would create the data dispersion benefits of separate lockers, but create only one system to secure. The ERO Enterprise concluded that a geographic or Regional Entity decentralized system would create more significant security vulnerabilities, require substantial additional cost to construct and maintain, and would risk losing the process standardization we set out to achieve over time. The alternative approach, calling for review of

Registered Entity evidence on-site at their premises, is also not feasible because it would require significant increases in time, staff, and travel expenses.

Ultimately, NERC determined, upon consultation with Registered Entities, that a single ERO Enterprise platform for collecting evidence had security advantages over several decentralized platforms and ensured proper chain of custody management. The ERO SEL will be designed to securely house all evidence associated with CMEP processes for all Registered Entities and will provide the necessary functionality to allow the evidence to be reviewed by ERO CMEP staff in a manner that allows them to perform their responsibilities.

The ERO SEL tool will provide content separation between evidence submitted by Registered Entities and work papers and analysis developed by ERO Enterprise CMEP staff. Work papers will be managed in the Align tool. The ERO SEL will have no integration or network connection with the Align tool, which provides an additional layer of security for the content in each tool. Through security features of the ERO SEL and training of ERO Enterprise CMEP staff, NERC will ensure that evidence handling protocols prevent improper access, use, or transfer of evidence maintained on the ERO SEL.

The proposed ERO SEL architecture and operational model will adhere to the National Institute of Standards and Technology (“NIST”) 800-171 security control framework, which is established to protect Controlled Unclassified Information (“CUI”) in nonfederal systems (Critical Energy Infrastructure Information (“CEII”) is classified as CUI). The ERO SEL is thus designed to significantly reduce risk of evidence loss and exposure. NERC will strive to ensure that the security features of the ERO SEL keep pace with the NIST standard as it evolves.

Additionally, NERC’s proposed investment costs, described below, include an independent third-party security review of the ERO SEL prior to launch. NERC also contemplates contracting

for an annual review thereafter. In sum, the ERO SEL will have functionality and security to:

- (1) enable submission by authorized and rigorously authenticated Registered Entity users;
- (2) provide compartmentalized analysis of evidence in temporary, isolated, and disposable environments;
- (3) prohibit interfaces with any other systems, including the Align tool;
- (4) encrypt documents and information immediately upon submission;
- (5) isolate submissions per entity;
- (6) prohibit extraction and backups; and
- (7) prescribe proactive and disciplined destruction policies.

NERC understands and supports efforts by Registered Entities that wish to mitigate risks to the security of their evidence even further, provided that this is done in a manner that allows the ERO Enterprise to continue to perform its responsibilities under the CMEP. Therefore, while NERC expects most Registered Entities to use the ERO SEL, certain Registered Entities have expressed an interest in constructing their own lockers. The ERO Enterprise is comfortable with Registered Entity-constructed lockers so long as they meet certain functionality criteria outlined on NERC's website. In limited circumstances, a Registered Entity may also seek to submit certain highly sensitive information through an alternative means (such as in-person review) and again, so long as this is done through means convenient to the Compliance Enforcement Authority, the ERO Enterprise will accommodate.

Collectively, the Align tool and the ERO SEL tool will provide a platform to enable harmonization of ERO Enterprise practices, standardize data definitions and improve reporting capabilities, and to drive to a common Registered Entity experience while facilitating the secure

submission, review, and retention of evidence generated during CMEP activities. The ERO Enterprise cannot say strongly enough that these tools and associated processes will be substantially more secure than the current suite of tools which were developed in a time when security concerns were lower than in today's environment. Continued development of the Align and the ERO SEL tools will occur in 2020, with the implementation of the ERO SEL and the first release of Align planned for the first quarter of 2021, with subsequent releases to follow.

#### **IV. FUNDING THE ERO SEL INVESTMENT**

The total anticipated capital expenditure in 2020 for development of the ERO SEL is \$3.8 million, of which \$1.8 million is proposed to be funded from operating contingency reserves and \$2.0 million will be funded from debt financing using a new credit facility approved by the NERC Board of Trustees on May 14, 2020.

NERC seeks Commission approval to expend the \$1.8 million from the operating contingency reserves, in accordance with Paragraph 7(b)(ii) of the Settlement Agreement in Docket No. FA11-21-000. Paragraph 7(b)(ii) provides the following:

NERC will file for Commission review and approval Board-of-Trustees-approved proposals to expend \$500,000 or more from operating reserves designated for "unforeseen contingencies" (as that term is defined in NERC's Working Capital and Operating Reserve Policy (Reserve Policy)). Each such filing will include supporting materials in sufficient detail to justify the proposed expenditure. The filing will be deemed approved if the Commission does not act on it or issue a tolling order extending the time for Commission action within thirty days of the filing date...

[T]his requirement for Commission review and approval is triggered if any amount allocated from the unforeseen contingencies account of operating reserves plus any amount redirected from previously budgeted funds is, in the aggregate, \$500,000 or more for any one specific project or major activity in a program area.

The NERC Technology and Security Committee recommended approving the investment in the ERO SEL to the Finance and Audit Committee ("FAC") after reviewing its functionality and security features. The FAC recommended the funding strategy for this investment to the NERC

Board of Trustees. The NERC Board of Trustees approved the proposed investment and funding strategy at its May 14, 2020 meeting. The aforementioned approval actions comply with NERC's Working Capital and Operating Reserve Policy ("Reserve Policy") which provides that for expenditures of working capital and operating reserves in excess of \$1 million, approval of the NERC Board of Trustees is required, after notice to and recommendation by the FAC.

Under NERC's Reserve Policy, reserves may be made available for "contingencies that were not anticipated, assumed to be likely or the timing of which was uncertain, at the time of preparation and approval of the company's business plan and budget." The unanticipated contingency necessitating the proposed expenditure from NERC's operating contingency reserves in 2020 is the development and implementation of the ERO SEL, which was not part of the initial design of the ERO Enterprise's CMEP standardization efforts nor of the specific development and implementation activities originally planned and budgeted for 2020. As a result, costs and related funding for the ERO SEL project were not included in the NERC 2020 business plan and budget.

In addition to the proposed \$1.8 million expenditure from operating contingency reserves, NERC seeks Commission approval to fund the remaining \$2.0 million of costs to develop the ERO SEL in 2020 through debt financing under a new credit facility approved by the NERC Board of Trustees on May 14, 2020. The new credit facility provides for a floating interest rate. NERC projects an interest rate of 3.00 percent in 2021. The borrowing for the ERO SEL project will be amortized over a five-year period and can be prepaid without penalty. NERC expects \$430,000 in annual debt service in 2021 and future years through 2025 related to this financing, which will be incorporated in NERC's 2021 and future year Business Plan and Budgets.<sup>4</sup> NERC also expects an

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<sup>4</sup> It is anticipated that the 2021 Business Plan and Budget filing will seek approval of a separate \$1.8 million withdrawal from operating contingency reserves to fund additional costs projected to be incurred in 2021 associated with the implementation of the Align tool.

annual full-year software, support, and maintenance expense for the ERO SEL of approximately \$570,000 in 2021 (also to be incorporated in NERC's 2021 Business Plan and Budget submission), with slight increases in those expenses in future years. These maintenance cost estimates are supplied by hardware and software vendors based on licensing agreements.

#### **V. IMPACT ON OF THE PROPOSED EXPENDITURE ON NERC'S OPERATING CONTINGENCY RESERVES**

After the proposed \$1.8 million expenditure in 2020, NERC projects that operating contingency reserves will remain well above its projected level of \$4.7 million at December 31, 2020, as projected in the approved 2020 Business Plan and Budget.<sup>5</sup> NERC's currently projected year-end 2020 operating contingency reserves will be approximately \$7.7 million, even after withdrawal of the proposed \$1.8 million in 2020 to fund the ERO SEL project. The higher-than-projected operating contingency reserves amount at year-end 2020 is due largely to reduced activity and spending levels in response to the COVID-19 pandemic. Based on the foregoing analysis, NERC management has determined that \$1.8 million can be expended from the operating contingency reserves in 2020, as proposed herein, without adversely impacting NERC's operating contingency reserves position and its ability to meet other unanticipated contingencies that could require the use of funds in the operating contingency reserves. Consistent with the regular business plan and budget process, NERC will submit to the Commission the required reconciliations of NERC's budgeted to actual expenditures for 2020 and 2021 in its annual budget-to-actual costs reconciliation costs, on or before May 30, 2021 and 2022, respectively.

#### **VI. REQUEST FOR COMMISSION ACTION BY JULY 8, 2020**

NERC respectfully requests that the Commission consider this Petition and issue an order

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<sup>5</sup> The Operating Contingency Reserve Target is 3.5 to 7.0% of total budgeted operating and capital expenditures, excluding those for CRISP and the System Operator Certification program, which have their own reserves.

by July 8, 2020, without issuing a tolling order as permitted under Paragraph 7(b)(ii) of the Settlement Agreement in Docket No. FA11-21-000. The requested order date will enable NERC to engage an identified contractor to complete the design, construction, and implementation of the ERO SEL. NERC notes that while it initially planned to bring the ERO SEL online by the fourth quarter of 2020, NERC anticipates an implementation delay until first quarter of 2021 due to supply chain disruption caused by the COVID-19 health crisis. Nonetheless, NERC must initiate this work as soon as possible to minimize the implementation delay.

## **VII. CONCLUSION**

For the reasons set forth above, NERC respectfully requests (1) Commission approval to expend up to \$3.8 million toward the development of the ERO SEL, which includes \$1.8 million from operating contingency reserves and \$2.0 million through debt financing using a new credit facility approved by the NERC Board of Trustees on May 14, 2020; and (2) issuance of an order by July 8, 2020, without issuing a tolling order, as permitted under Paragraph 7(b)(ii) of the Settlement Agreement in Docket No. FA11-21-000.

Respectfully submitted,

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