

## Staff Briefing Papers

**Meeting Date:** January 7, 2025

Agenda Item 2\*\*

**Company:** Minnesota Power (ALLETE)

**Docket:** E-015/CN-22-607  
E-015/TL-22-611

In the Matter of the Application of Minnesota Power for a Certificate of Need and Route Permit for a High Voltage Transmission Line for the HVDC Modernization Project in Hermantown, Saint Louis County

**Issues:**

- Should the Commission reconsider its October 25, 2024 Order Granting a Certificate of Need and Issuing a Route Permit?

<b>Staff:</b>	Bret Eknes	bret.eknes@state.mn.us	651-201-2236
	Sam Lobby	sam.lobby@state.mn.us	651-201-2205

✓ Relevant Documents	Date
Minnesota Power – Initial Filing, Combined Application (10 parts)	06/01/2023
Order Accepting Application as Complete, Authorizing Joint Review Under Informal Procedure, and Requesting Summary Proceeding	08/08/2023
Order Identifying Alternative Proposal for Environmental Assessment Scope, Granting Variance, and Notice of and Order for Hearing	11/29/2023
Environmental Assessment with Appendices (2 parts) (DOC)	02/29/2024

To request this document in another format such as large print or audio, call 651-296-0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us) for assistance.

The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

✓ **Relevant Documents**

**Date**

ALJ Findings of Fact, Conclusions of Law, and Recommendation	06/21/2024
Order Granting Certificate of Need and Route Permit (PUC)	10/25/2024
Large Power Intervenors – LPI Petition for Reconsideration (LPI)	11/14/2024
Minnesota Power – Answer to LPI’s Petition for Reconsideration (MP)	11/25/2024

**ISSUE**

Should the Commission reconsider its October 25, 2024 Order Granting a Certificate of Need and Issuing a Route Permit?

**BACKGROUND**

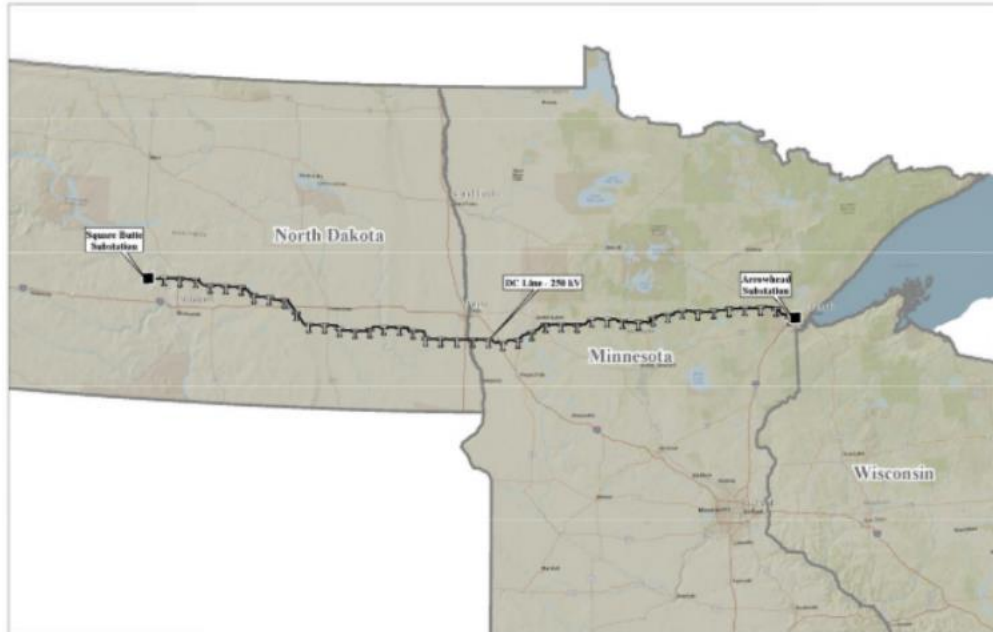
On June 1, 2023, Minnesota Power (MP or Applicant) filed a combined certificate of need and high-voltage transmission line route permit application with the Commission for the MP HVDC Modernization Project (project or MP alternative). The MP HVDC line is a 465-mile, ±250 kilovolt (kV), 550-megawatt (MW) High-Voltage Direct-Current (HVDC) transmission line first placed into service in 1977 and is also known as the Square Butte Transmission Line. The HVDC converter stations are located near the Arrowhead Substation in Hermantown, Minnesota and the Center Substation in Center, North Dakota where the DC electricity is converted into alternating current (AC), and then interconnected to the transmission system.

MP asserted that the main driver for the project is the age and condition of the converter facilities at the ends of the HVDC Line. The HVDC line currently provides Minnesota with access to 600 MW of wind generation. MP noted the existing facilities have operated beyond their designed life and that terminal outages are increasing due to failures in the control system, power electronics, transformers, and other components.

The purpose of the proposed project is to facilitate the continued delivery of wind-generated electricity from North Dakota to northeastern Minnesota. The HVDC Modernization Project includes modernizing and upgrading both the North Dakota and Minnesota terminals for the HVDC Line and interconnecting the upgraded HVDC terminals to the existing AC transmission system at the existing points of interconnection. In addition to replacement of the existing HVDC terminal equipment, the project would include an upgrade to the best-available voltage source converter technology to continue its support for the reliable transition to clean energy. The

project would also enable bi-directional transfer of electricity between the North Dakota and Minnesota terminals.

According to MP’s application, the proposed project is scheduled to be placed in-service between December 2028 and April 2030. The cost of construction, including the North Dakota portions, is expected to be between approximately \$600 million and \$940 million. Minnesota ratepayers would pay for the project, including portions physically located in North Dakota.



**Figure 1: Minnesota Power HVDC (Square Butte) Transmission Line**

As proposed, in order to connect the new MP HVDC terminal to the existing AC system in Minnesota, the Project requires construction of a new Saint Louis County 345 kV/230 kV substation to be located less than one mile west of the current Arrowhead Substation near the city of Hermantown. The new MP HVDC terminal will connect to the new St. Louis County Substation by less than one mile of 345 kV high-voltage transmission line (HVTL) and the new St. Louis County Substation would be connected to the existing Arrowhead Substation by two parallel 230 kV HVTLs less than one mile in length. Additionally, a short portion of the existing  $\pm 250$  kV MP HVDC Line in Minnesota will need to be reconfigured to terminate at the new HVDC terminal. In North Dakota, similar project development and construction activities will occur.

On October 25, 2024, the Commission filed an Order Granting the Certificate of Need and a Route Permit for the Minnesota HVDC Modernization Project. The Order adopted the

Administrative Law Judge (ALJ) Report to the extent it was consistent with the Commission’s decisions, and with some specific modifications made to the ALJ Report. The Order also found the environmental assessment was adequate and addressed issues identified in the scoping decision. The Order also required that Minnesota Power file information regarding federal funds coming from the U.S. Department of Energy, as well as requiring Minnesota Power to file biannual reports.

The construction of the two HVDC converter stations (one in Minnesota and the other in North Dakota) would be capable of transferring up to 1,500 MW. The Company currently holds transmission service requests granting it rights for an additional 350 MW of capacity above the 550 MW present capability. The additional capacity would become usable for Minnesota Power’s customers upon completion of the Project and a separate HVDC 900 MW transmission line upgrade project. The transmission line upgrade project is not part of this proceeding and will not be subject to a certificate of need from the Commission because it involves upgrading the existing transmission line on existing right-of-way without changing the voltage.

The Project, as proposed, along with the transmission line upgrade, will be capable of delivering 900 MW of renewable energy, either for use by Minnesota Power’s customers, or in the alternative, to be assigned elsewhere to other entities that need the access, thereby offsetting costs to the Company’s customers.

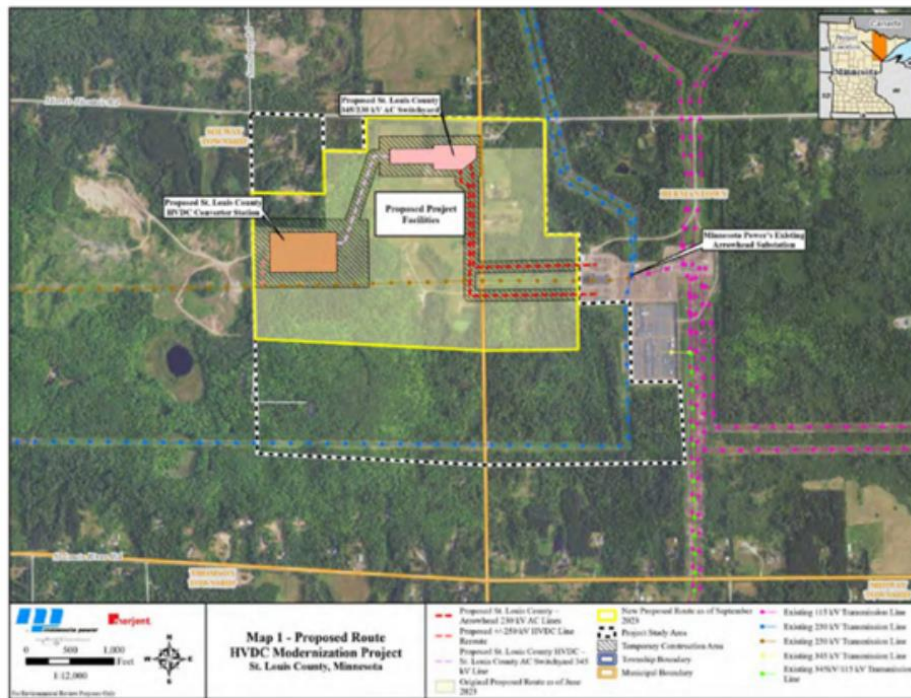


Figure 2: Minnesota Power HVDC Project Final Proposed Route

## STATUTES AND RULES

Under Minn. Stat. § 216B.27 and Minn. R. 7829.3000:

- A party or a person aggrieved and directly affected by a Commission decision or order may file a petition for reconsideration within 20 days of the date the decision or order is issued. Other parties to the proceeding may file answers to the petition within 10 days of filing the petition. Replies to answers are not permitted unless specifically authorized by the Commission.
- A petition for rehearing, amendment, vacation, reconsideration, or reargument must set forth specifically the grounds relied upon, or errors claimed on which the Commission's decision is unlawful or unreasonable.
- The Commission has the authority to decide a petition for reconsideration with or without a hearing or oral argument. The Commission may reverse, change, modify, or suspend its original decision if it finds its decision unlawful or unreasonable.
- Any application for rehearing or reconsideration not granted within 60 days from the date of filing shall be deemed denied.
- A second petition for rehearing of a Commission decision or order by the same party or parties and upon the same grounds as a former petition that has been considered and denied will not be entertained.

Minn. Stat. § 216B.25 provides that:

The Commission may at any time, on its own motion or upon motion of an interested party, and upon notice to the public utility and after opportunity to be heard, rescind, alter, or amend any order fixing rates, tolls, charges, or schedules, or any other order made by the commission, and may reopen any case following the issuance of an order therein, for the taking of further evidence or for any other reason. Any order rescinding, altering, amending, or reopening a prior order shall have the same effect as an original order.

When it reviews petitions for reconsideration, the Commission typically reviews whether the petition (i) raises new issues, (ii) points to new and relevant evidence, (iii) exposes errors or ambiguities in the underlying order, or (iv) otherwise persuades the Commission that it should rethink its decision.

## PROCEDURAL HISTORY

On June 1, 2023, Minnesota Power filed a combined application for a certificate of need and route permit for a high-voltage direct-current (HVDC) project to modernize their substation in Hermantown, Minnesota.

On November 29, 2023, the Commission referred the matter to the Office of Administrative Hearings for contested case proceedings.

On February 29, 2024, the Department of Commerce Energy Environmental Review and Analysis (DOC EERA) staff issued the Environmental Assessment for the MP HVDC Modernization Project.

On March 13, 2024, a virtual and in-person public hearings were held on the project.

On March 19, 2024, the ALJ held an evidentiary hearing at the Public Utilities Commission.

On June 21, 2024, the Administrative Law Judge issued Findings of Fact, Conclusions of Law, and Recommendations in the ALJ Report.

By July 1, 2024, the DOC EERA, the American Transmission Company (ATC), Minnesota Power, and the Large Power Intervenors (LPI) filed exceptions to the ALJ Report.

On August 1, 2024, the Commission met to consider the matter, and the record closed under Minn. Stat. § 14.61, subd. 2.

On October 25, 2024, the Commission issued its Order Granting a Certificate of Need and Route Permit for the Minnesota Power HVDC Modernization Project.

On November 14, 2024, the LPI filed a Petition for Reconsideration.

On November 25, 2024, Minnesota Power filed their Answer to LPI's Petition for Reconsideration.

## RECONSIDERATION

Large Power Intervenors Petition

On November 14, 2024, the Large Power Intervenors (LPI) filed a petition for reconsideration<sup>1</sup> of the Commission's October 25, 2024 *Order Granting Certificate of Need and Route Permit* for a High Voltage Transmission Line for the HVDC Modernization Project.

LPI argued that the Commission deviated from longstanding precedent in four ways by:

- 1) not requiring Minnesota Power to demonstrate a need to expand the capacity of the system to provide service to its customers;
- 2) not determining an appropriate cost allocation for the project;
- 3) not imposing conditions to protect ratepayers from undue risk and ensure that ratepayers receive any and all of the benefits that might flow from the project; and
- 4) failing to take into account that the impact of this project and other planned investments will result in rates that are unjust and unreasonable.

LPI also asserted that the Commission should reconsider the policy of its decision because it will encourage transmission-owning utilities to decline to use regional planning processes in order to maximize their rate base and avoid cost sharing.

LPI requested that the Commission reconsider its Order and issue a new Order that places the risk of expandability portion of the project on the Company and protects ratepayers from paying costs unnecessarily incurred and from which they will not benefit.

#### *Need Demonstration*

LPI argued that during the review process Minnesota Power admitted it did not currently need the expanded capacity resulting from the proposed upgrade and failed to offer any record support of how its customers would benefit for the assignment of the additional 350 MW of capacity to third parties on a "limited basis." LPI's opposition is focused on the fact that the Company did not demonstrate a current need for the incremental 350 MW of capacity at a cost of \$372 million. MP failed to meet a core requirement for a certificate of need.

#### *Cost Allocation*

LPI asserted that the Commission should reconsider its Order to ensure that MP's customers are not paying for benefits realized in other states or other service areas in Minnesota. Cost allocation principles require that costs are roughly commensurate to the estimated benefits, while benefit-to-cost thresholds are not so high as to eliminate projects with significant net benefits. Principles of cost causation and transmission cost allocation require that the costs

---

<sup>1</sup> LPI Petition for Reconsideration - [202411-211959-04](#)

associated with the Project's expandability beyond that needed for MP's customers, should be subject to cost sharing and assigned to those that benefit.

LPI suggested that the Order does not contain appropriate measures to protect the Company's ratepayers from bearing the costs of the expansion portion of the upgrades for which they will not receive benefit. Those risks should be borne by Minnesota Power and the Commission should establish appropriate protections to balance the costs and risks of the upgrades.

### *Ratepayer Protections*

LPI argued that the Order does not appropriately consider the cost impacts of the Project on MP's ratepayers, especially its large industrial customers who will pay for most of the costs of the Project. LPI requested that the Order be reconsidered and revised to protect customers from undue risk and ensure that the benefits of the Project go to MP's customers and not to its affiliates.

Approval should be conditioned such that Minnesota Power cannot recover the cost of the 350 MW expansion portion of the Project until it has proven that customers will receive benefits that exceed the costs. LPI recommended that approval be conditioned so that Minnesota Power is not allowed to recover the incremental costs associated with the expansion portion of the Project, in a range of \$149 to \$372 million, until it demonstrates its customers will financially benefit from them. In addition, LPI recommended that approval of the Project be conditioned on the Company assuming the risk of securing the grant funding that has been promised.

Finally, LPI recommended that the Commission impose a cost cap on MP's ability to recover the costs of the Project and suggested that the cap be set at \$660 million, which is the low-end of the range of cost estimates presented by Minnesota Power in its application. Commission precedent requires that cost control measures be imposed.

### *Unjust and Unreasonable Rates*

LPI asserted that because of MP's near-term plans for a significant amount of investment, the Commission must evaluate the total project costs and its impact on rates. LPI indicated the investments will result in a tripling of the Company's rate base. LPI recommended the Commission consider slowing the Company's level of investment. Simply demonstrating that expenses were incurred does not meet the burden of demonstrating that it is just and reasonable for ratepayers to pay for those expenses.

As presented in MP's certificate of need application, first-year revenue requirements range from \$86.4 million to \$101.86 million— on a system wide basis, which represents a substantive



increase of 11.6% to 13.7% respectively, when compared to present rate revenues. The estimated rate increase for the Project to LPI's members ranges from 9.82% to 14.01%.

In addition to the cost of the HVDC Project, MP will be making significant investments in other transmission projects within the state. MISO has projected a cost range of \$17 billion to \$23 billion for its Tranche 2 Portfolio of projects and Minnesota Power's ratepayers will be responsible for a portion of those project costs. Both the Company and the Commission must be aware of the risks associated with these investments and take measures to control the rate at which investments are approved, to ensure that rates remain just and reasonable.

### *Policy Ramifications and Unintended Consequences*

LPI expressed its concern with the way approval of the HVDC Project has occurred and that it might encourage utilities to propose and build major transmission projects outside of the regional planning process. LPI asserted that it is important that the costs of these significant investments be broadly socialized. If a utility fails to demonstrate the need to increase transmission or generating capacity based on the need of its native load, then it is unreasonable to approve the construction and cost recovery solely from that native load. Given the current development of significant regional transmission planning initiatives, LPI encouraged the Commission to reevaluate the policy ramifications of its decision in this matter.

### *Conclusion*

LPI urged the Commission to amend its order in the following manner:

1. permit a like-size replacement only, instead of the HVDC System expansion;
2. limit approval to replacement of the aging components and require MP to bear the risk of expansion;
3. consider slowing MP's rate of investment to maintain just and reasonable rates;
4. impose a cost cap of \$660 million; and
5. include conditions to protect customers from undue risk and ensure that the benefits of the Project flow to customers and not MP's affiliates.

### Minnesota Power's Response

Minnesota Power argued<sup>2</sup> that the reasons LPI puts forward in its reconsideration petition are the same claims it put forth during the proceeding. LPI's assertions were considered and rejected by the Administrative Law Judge and the Commission. MP further argued that the

---

<sup>2</sup> Minnesota Power Answer to LPI's Petition for Reconsideration - [202411-212395-02](#)

claims raised by LPI regarding cost recovery for the Company's transmission projects is not relevant to this proceeding and should be addressed in future rate adjustment proceedings.

### *Need Demonstration*

Minnesota Power argued that LPI's allegation that the Company failed to demonstrate the need for the expansion capability of the Project ignores the substantial evidence in the record that details how the additional transmission capacity will impact ratepayers. Minnesota Power indicated that it can either use this additional transmission capacity to serve its own customers or it could sell the capacity to other entities, receive additional revenue from it, and flow those revenues back to customers.

Minnesota Power asserted that incorporating future expansion capabilities into transmission facilities is consistent with good utility practice and long-term transmission planning. Transmission assets have decades long service lives, and it is important that these assets can meet existing system needs and future needs. Incorporating future expansion capabilities into the design of the converter stations at the outset will ensure that the converter stations do not become obsolete and need to be replaced prior to the end of their service life.

MP argued that the need for the future expansion capability of the HVDC converter stations is well-supported by the record in this proceeding and is consistent with good utility practice and long-term transmission planning. LPI's Petition fails to point out any new issues, new evidence, or errors in the Commission's Order that would warrant disturbing the Commission's decision on this point.

### *Cost Allocation*

Minnesota Power asserted that the criteria and process for allocating transmission costs among transmission owners is outlined in the MISO's FERC-approved tariff and is not an issue before the Commission in this proceeding. In addition, MISO regional cost allocation is only possible for projects that meet the specific criteria outlined in the MISO Tariff. The Project does not meet the criteria for regional cost allocation under the MISO Tariff and as a result, the costs of the Project were assigned to MP for the asset renewal aspect of the Project given the designation of the Project under the MISO Tariff and the fact that nearly all of the benefits of the Project will flow to Minnesota Power's ratepayers, as has been the case for the decades of operation of the HVDC System.

### *Ratepayer Protections*

MP asserted that there are ratepayer protections under existing cost recovery processes. MP explained that the costs for the HVDC Modernization Project will be recovered initially through

a transmission rider which provides that the utility can only recover costs up to the level of the cost estimate provided in the Certificate of Need. Any amount above that cost estimate must be recovered in a base rate proceeding where the utility bears the burden of proving that any higher costs are reasonable and prudent. MP suggested that the limitation on transmission rider cost recovery is a meaningful cost control mechanism that the Commission has had in place for many years and has proven to be a sufficient customer protection.

MP argued that LPI failed to articulate why the Commission should reconsider its Order in this instance to deviate from this long-standing Commission practice.

### *Unjust and Unreasonable Rates*

With respect to LPI's request that the Commission assess the ratepayer impact of the HVDC Project with the Company's other planned investments, MP argued that such an analysis is outside the scope of this proceeding and has never been applied by the Commission in any project specific need or route permit proceeding. MP suggested that the rate impact of the project combined with other investment would be more appropriately considered in a transmission rider proceeding or in a rate case where there is a sufficient record to examine the prudence of the Company's investments and the Commission can more appropriately consider whether the Company's overall rates are just and reasonable.

### *Policy Implications*

MP also suggested that the Commission should decline LPI's recommendation to reconsider the "policy implications" of its decision arguing that LPI's concern is baseless. The Company asserted that it is an active participant in the MISO regional transmission planning process and is currently working with other Minnesota utilities on the development and construction of several transmission projects that came out of MISO's Long Range Transmission Planning process. The HVDC Project followed a different process under the MISO tariff than the LRTP projects did, but it is still an appropriate process.

### *Conclusion*

MP asserted that LPI's petition failed to raise new issues, bring forth new and relevant evidence, or expose errors or ambiguities in the Commission's Order and recommended the petition be denied.

## **DISCUSSION**

LPI is requesting the Commission reconsider its October 25, 2024 Order Granting Certificate of Need and Issuing Route Permit, and add additional restrictions and requirements to protect

ratepayers and to limit Minnesota's Power's ability to obtain cost recovery of the expenses associated with the expandability portion of the Project.

The Commission Order found that the cost recovery regarding the Company's decision to invest in the expandability portion of the equipment upgrades would be subsequently considered in a separate proceeding. Specifically, the Order states that Minnesota Power acknowledged that "it would seek recovery of costs related to any amounts associated with additional transmission capacity over 550 MW in a rate case proceeding, which would subject the Company's claimed costs to a high level of scrutiny." Therefore, staff suggests that even with the granting of the certificate of need, the Commission could, in a future cost recovery proceeding, find that some portion of the increase is not used and useful. Such a finding would preclude MP from recovering costs for the NOT used and useful portion.

If the Commission decides to reconsider the Order, it will need to determine whether the existing cost recovery processes, including the transmission cost recovery rider and utility rate case proceedings provide a sufficient level of scrutiny or whether additional conditions or measures should be added.

Staff notes that LPI's proposed conditions for addressing the substantive deficiencies in the Commission's Order have been set out as decision options for consideration. Staff however recommends that if the Commission chooses to reconsider the Order, it should seek clarification from LPI what it is specifically recommending the Commission require to allow for the development of meaningful and enforceable motion language to address their concerns. Staff believes such clarification is particularly important regarding Decision Options 3.C and 3.E.

## DECISION OPTIONS

1. Deny the request for reconsideration of the October 25, 2024 Order.

*Or*

2. Reconsider the October 25, 2024 Order.

*And, if the Commission chooses to reconsider the Order, it may select any or all of the conditions proposed by the Large Power Intervenors set out in decision option 3:*

3. Modify the Order as follows:
  - A. Grant a certificate of need and route permit for only a like-sized replacement instead of the HVDC expansion Minnesota Power has proposed;
  - B. Limit approval to the replacement of aging components and require Minnesota Power to assume the risk of expansion; deny recovery of Project costs until the Company demonstrates the buildout results in financial benefit to its customers;
  - C. Limit the pace of Minnesota Power's investment;
  - D. Impose a cost cap of \$660 million for the Project;
  - E. Impose conditions to protect Minnesota Power's customers from undue risk and ensure all benefits resulting from the Project flow to customers and not MP's affiliates.

*And, if the Commission modifies the Order:*

4. Delegate authority to the Executive Secretary to modify the Route Permit and the ALJ Report to be consistent with this decision, and to issue the amended Route Permit.