FISCAL IMPACT REPORT

		LAST UPDATED	
SPONSOR	Muñoz	**ORIGINAL DATE**	02/27/23
SHORT TITLE	Broadband Company Redundant Cable Lines	**BILL NUMBER**	Senate Bill 320
		ANALYST	Hitzman

REVENUE*
(dollars in thousands)

Estimated Revenue			Recurring or Nonrecurring	Fund Affected
FY23	FY24	FY25		
N/A	$0 - $2,100.0	$0 - $2,100.0	Recurring	PRC Operating Fund

Parentheses ( ) indicate revenue decreases.
*Amounts reflect most recent analysis of this legislation.

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT*
(dollars in thousands)

	FY23	FY24	FY25	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
Redundancy for Federal Middle Mile Grant Project	No Fiscal Impact	$30,000.0	No Fiscal Impact	$30,000.0	Nonrecurring	General Fund
PRC Rulemaking	No Fiscal Impact	Indeterminate but minimal	No Fiscal Impact	Indeterminate but minimal	Nonrecurring	General Fund
Total						

Parentheses ( ) indicate expenditure decreases.
*Amounts reflect most recent analysis of this legislation.

Sources of Information

LFC Files
North American Telecommunications Damage Prevention Council

Responses Received From
Public Regulation Commission (PRC)
Department of Information Technology (DoIT)/Office of Broadband Access and Expansion (OBAE)
Department of Transportation (NMDOT)
Public School Facilities Authority (PSFA)

SUMMARY

Synopsis of Senate Bill 320

Senate Bill 320 (SB320) adds a new section to Chapter 63 of New Mexico statute to require a company that operates a middle mile cable line, the segment linking the core network with the local network, for broadband internet service providers or customers to maintain a redundant cable line with the same capacity as defined by the Public Regulation Commission (PRC) rules. If a service line is cut or otherwise disrupted and the operator does not have a redundant line, the company shall pay a fine to PRC totaling $75 thousand per hour of disrupted service.

Definitions include "backhaul network," "cable modem termination system," "core network," "local loop," and "middle mile."

The effective date of this bill is July 1, 2023.

FISCAL IMPLICATIONS

Because the bill creates a new monetary penalty for disrupted services, PRC may experience an increase in revenues equal to the amount of penalties received, but the amount is not currently known and would depend on the number of outages in a given year. In 2022, Lumen experienced a fiber optic line cut that caused service outages in and around Gallup. The outage lasted 14 hours, and because the entity did not operate a redundant line, several areas were left without internet services, including banking and other emergency services. If SB320 were in place during that outage, it would have resulted in a penalty of just over $1 million.

Looking at reports on current events in 2022, it seems there could be an average of two to three fiber optic line cuts and resulting outages per year. The North American Telecommunications Damage Prevention Council cites the average cost to bury or repair a fiber optic cable to total $75 thousand per mile, with the maximum reported cost to repair a damaged telecom facility totaling $92 thousand in 2019. Therefore, the penalty provided for in SB320 may be enough to fully cover the cost of repairs, depending on the number of miles of fiber affected. Outages can vary in length; For example, Spectrum repaired a damaged fiber optic line within about six hours after an outage in Livingston County, Ohio, or in about half the time of the Lumen outage. The analysis assumes the 14 hour outage to be the mid-point for the estimated budget impact. The revenue received from the penalties is assumed, then, to potentially range from nothing if there were no violations to around $1 million if the outage is of a similar length as the Lumen outage, and up to $2.1 million if the outage lasts twice as long as the Lumen outage.

Further, the requirement to have redundant lines for all middle mile projects is likely to increase, if not double, the cost of new middle mile projects without existing redundant lines. For example, the Department of Information Technology (DoIT) and Office of Broadband Access and Expansion (OBAE) provide the following:

> OBAE has applied to National Telecommunications and Information Association (NTIA) for a middle mile project that will cost $45 million with a state investment of $15 million. If the Office of Broadband Access and Expansion (OBAE) is required to build redundant paths, this will double the cost to $30 million. Every planned project OBAE engages in has the potential to double.

Other fiber optic installs by state agencies would also likely experience a cost increase for this same reason.

SIGNIFICANT ISSUES

DoIT and OBAE notes concern over the determination of liability and note uncertainty surrounding how those fines are determined:

> The bill imposes strict liability against operating companies in the event of an outage on a nonredundant line and mandates the payment of potentially hundreds of thousands or even millions of dollars in fines without specifying any process by which the amount of the fine would be determined, or by whom the amount of the fine would be determined.
>
> The bill fails to specify any process by which an operating company could challenge or appeal the fine.

DoIT and OBAE note building redundant lines can create a "tremendous expense" and PRC notes there is "significant ambiguity in the bill." Further, PRC notes:

> There is a significant ambiguity in the bill. It is not clear how to calculate a fine "in the amount of seventy-five thousand dollars ($75,000) per hour of disrupted service over each mile of cable with disrupted service on a pro rata basis." "A pro rata basis" usually refers to how an amount should be allocated among multiple persons, but there is no allocation to be done here—the entire fine is against the operator. The first part of this description seems to indicate that the operator would be fined $75,000 per hour of disrupted service, which is comprehensible. The additional language renders the calculation of the fine incomprehensible.

Further, the Department of Transportation (NMDOT) notes:

> SB320 does not prevent the middle mile service provider from seeking damages to offset the penalty assessment stemming from that provider's failure to install redundant service lines. As a result, the noncompliant service provider could seek damages including this penalty fee from a third party, including a governmental entity, for a cut, backhoe strike or other event damaging or causing a separation in a broadband cable, whether an aerial overhead line or a buried line enclosed in a conduit. For example: the NMDOT could be the source of accidental or inadvertent damage to private broadband infrastructure located within public right-of-way (ROW) either during routine maintenance of NMDOT drainage facilities, backhoe cleaning of highway culverts, or during new construction or highway improvements. Without an express prohibition or exclusion for service lines in the public highway ROW, a non-compliant, fined operator could seek recoupment of the penalty from the NMDOT if alleged to be the cause of the damage. NMDOT does not believe the intent of SB320 is for the penalty related to the operator's failure to establish redundant service to be passed through to the taxpayers or other third-parties. NMDOT suggests SB320 be amended to expressly disallow the non-compliant operator to include the penalty assessment in any subsequent damages claim it may make related to a service disruption.

The Public School Facilities Authority (PSFA) notes the intent of the bill, which is likely to prevent outages, may not be fully achieved through the provisions of this bill, noting: "Network resiliency is extremely important for today's broadband service, especially for 'middle mile' type services. However, the requirement to '*maintain redundant cable lines of the same capacity*' will not eliminate all possible outages (related to outages of internet upstream, equipment or software failures, and cyberattacks)."

Further, PSFA notes, "These requirements will also likely slow down (or stop in some cases) the speed of deployment of wired/high capacity broadband to rural areas, which could lead to increased project costs over time," and would likely "affect rural service and providers in the most significant way (because of long distances involved), where many providers may choose not to provide service any longer."

However, it is possible that requiring entities to pay penalties for disruptions of service can incentivize private companies to provide more redundancy and provide better services to customers to avoid having to pay those penalties. This could result in less downtime for the public and could prevent the loss of emergency services in cases of an outage.

ADMINISTRATIVE IMPLICATIONS

As noted by PRC, the agency would need to conduct a rulemaking proceeding if the bill were adopted.

TECHNICAL ISSUES

DoIT notes the following:

> There is no definition for "operating company," and it is not clear from the plain language of the bill what would constitute an "operating company."
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> Although the bill defines "middle mile, there is no definition of "cable line" as used in the statute, which is confusing because it could imply DSL only and not fiber.

ALTERNATIVES

DoIT and OBAE note the following:

> The cost associated with creating redundancy could be prohibitive for carrying out state and federally funded projects to build out broadband infrastructure. An alternative may be to require resiliency rings rather than redundancy fiber lines.
>
> OBAE is supportive of alternatives to redundancy through the use of resiliency rings to provide alternate Broadband pathways when there is a fiber cut. The use of such resiliency rings involves some strategic planning and additional cost, but such costs would be far less than the cost of total redundancy, which effectively doubles project costs. Fines will also likely be passed on to consumers in underserved communities which is likely not the intent of the bill.

AMENDMENTS

DoIT and OBAE "suggest amending redundant Broadband cables to Broadband resiliency rings, adding definitions, clarifying the vague and confusing language around calculation of the fine, identifying the method by which fines will be determined and by whom, and providing a process by which operating companies may challenge such fines."

Further, DoIT and OBAE "suggest clarifying whether the bill applies only to the middle mile (vs. last mile too) and would pertain only to future networks (or include existing)" and "whether the bill applies to cable, and legacy copper or just fiber."

DoIT and OBAE also "suggest adding clarity on the depth of the redundancy and if the redundancy is there for all cases: cable cuts and/or also other root causes of network going dark (e.g., cybersecurity attacks; environmental damage – i.e., fire, floods; power outage, etc.)."

NMDOT also notes:

> NMDOT proposes to mitigate its potential liability for broadband service interruption "penalties" by amending the definition of "middle mile" to exclude system installations within federal highway or state public highway right-of-way.
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> NMDOT suggests amending Section 1(C)(5) beginning, at page 3, line 3 as follows:
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> "nearest point of presence on an operator's core network. <u>Middle mile does not include installations in the area on, below or above a federal interstate highway or a state highway or route under the jurisdiction of the department of transportation."</u>

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