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ANDY TOBIN
COMMISSIONER

Direct Line: (602) 542-3625
Email: Tobin-Web@azcc.gov

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ARIZONA CORPORATION COMMISSION

Arizona Corporation Commissioner Andy Tobin Unveils New Program To Help Rural Arizona Schools Connect to High-Speed Internet

(Phoenix) Responding to Governor Ducey's 2017 State of the State address, Commissioner Andy Tobin urges to the Corporation Commission to answer the Governor's call and adopt an innovative program that will improve education for students all across the state by increasing internet access.

"There is a real and troubling digital divide when it comes to internet access in our urban and rural areas," said Commissioner Andy Tobin in a letter to a Corporation Commission telecommunications docket, "Every student must be afforded the same opportunity to learn, including those who live on tribal lands, in some inner city areas, or in the most remote reaches of the state."

This initiative would complement Governor Ducey's commitment to bringing technology to rural Arizona.

In his State of the State, the Governor said, "Too many students, specifically in our rural areas are missing out. Let's fix this, by connecting these rural schools to high-speed internet. And let's couple it with a statewide computer science and coding initiative. This session, let's break the firewall and get these kids connected."

The program released by Commissioner Tobin does just that. It creates an exciting partnership with the Governor's Office, the State Superintendent's office, and a non-profit called **EducationSuperHighway** to create a state match of funds in order to meet the connectivity needs of rural Arizona. The total match is estimated to be \$8-\$13 million.

The state match could then help districts draw funds available from the Federal Communications Commission (FCC) and could equal an estimated \$80-\$100 million in federal construction dollars that would go directly into the economies of cities and towns across Arizona.

To accomplish the state match, Commissioner Tobin proposes establishing a new program which uses the Arizona Universal Service Fund (AUSF) to provide a portion of the state matching funds. The purpose of the AUSF is to support telecommunications carriers which serve in high cost areas of rural Arizona. A one-time distribution of \$8 million from the existing AUSF would serve as the large portion of the state's match. The program would be limited in order to take advantage of the immediate federal funding opportunities available, and the program would be eliminated after all the funds have been dispersed to schools and libraries.

"The AUSF must adapt to changes in new telecommunications technology and should be used where possible to harness benefits provided at the federal level and in concert with federal funding mechanisms," said Tobin. "For this reason, I see much promise and possibility of using the AUSF to help

permanently rewire the telecommunications landscape in these rural areas.”

The Commission would need to undertake emergency rulemaking to revise the AUSF so it can be used in such a way to meet deadlines for schools to apply for grants. Commissioner Tobin’s entire letter can be found at www.azcc.gov by going to eDocket and entering docket number RT-00000H-97-0137. The program will be discussed at a Staff Meeting tomorrow, January 11th at 10:00 a.m.

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Commissioner

ARIZONA CORPORATION COMMISSION

January 9, 2017

Docket Control
Arizona Corporation Commission
1200 W. Washington St.
Phoenix, AZ 85007

RE: Docket No. RT-00000H-97-0137 (Arizona Universal Service Fund)

Dear Commissioners and Other Interested Parties:

Governor Doug Ducey's call to action in his 2017 State of the State address is very clear: Now is the time for state leaders to seize an incredible opportunity to increase internet access for Arizona students.

There is a real and troubling digital divide when it comes to internet access in our urban and rural areas. The vast majority of Arizona's rural schools and libraries lack the bandwidth speed necessary to support a variety of digital learning, including professional development for teachers, electronic textbooks, "tele-classrooms" that feature teachers based in other cities and towns and testing among other teaching tools and applications. The connectivity problem may also extend into some inner city schools and libraries. This predominately rural inequity impairs "Opportunity for All," a promise on which the governor campaigned, from being truly realized. Every Arizona student must be afforded the same opportunity to learn, including those who live on tribal lands, in some inner city areas, or in the most remote reaches of the state.

When it comes to connecting our rural schools and libraries to the internet, Arizona faces two major challenges: 1) cost and 2) infrastructure capable of supporting high-speed digital learning.

We know that while 63 percent of school districts in Arizona met the Federal Communications Commission's (FCC's) standard for internet access in 2015, only **six percent** met the national affordability benchmarks, which range between \$3.00 per megabit per second (Mbps—a metric of data transfer/bandwidth speed) and \$14.00 per Mbps.¹ Many districts in the state currently

¹ *Governor's Office & Arizona Department of Education Partner to Increase Internet Access for Arizona Students*, Governor's Office of Education, <http://education.azgovernor.gov/edu/blog/2016/03/governors-office-arizona-department-education-partner-increase-internet-access>.

pay over \$50 per Mbps.² Not only does costly internet access occupy precious resources that could be used elsewhere in the classroom, but it also makes it virtually impossible for districts to even think about offering high-speed internet for their students.

We know that in 2015, a staggering 37 percent of Arizona school districts lacked internet capabilities consistent with FCC's standard of 100 kilobits per second (0.1 Mbps) per student. Over 63 percent of these districts were located in rural Arizona.³ The so-called "last mile" for connectivity is best described as "last miles." Conduit and fiber to support today and tomorrow's digital learning needs must stretch for miles through mountains and deserts, high and low, to reach the most isolated areas of our state. In addition, obstacles are often encountered with middle mile facilities, which have further stalled deployment of internet access to rural areas.

The bandwidth needs of schools and libraries using digital learning are growing exponentially. The FCC standard of 100 Kbps per student will increase to 1 Mbps in 2018. Experts project that by 2034, the bandwidth necessary to support the multitude of learning technologies and devices will have increased 35-fold over today's capacity.⁴

Under the leadership of Chairman Forese, I have supported and the Commission has adopted energy efficiency programs that benefit our public schools. The Chairman's innovative efforts to lower utility bills of public schools by making them more energy efficient has allowed those schools to spend their savings on other priorities that impact student achievement like classroom technology and teacher pay.

Now there is another opportunity for the Commission to assist schools and libraries.

We should answer Governor Ducey's call and partner with him, State Superintendent Diane Douglas, interested rural public schools and libraries, and the state's telecommunications industry, to bring high-speed internet to places that have long faced barriers to connectivity.

The strategy is fairly straight-forward. Under the FCC's E-rate Modernization Order⁵, the FCC has provided additional E-rate Category One funding to match state funding for special construction to provide schools and libraries with the monies necessary to finance construction of broadband infrastructure. This is a recent program of limited duration, so the state must act

² *Compare & Connect K-12*, EducationSuperHighway, <http://www.compareandconnectk12.org/2016/compare/services?connections=FIBER&distance=STATE&iaSubFilters=Internet&iaSubFilters=Upstream&iaSubFilters=ISP&iaViewAs=COST&locales=Urban&locales=Suburban&locales=Town&locales=Rural&page=services&postalCd=AZ&price=30000&serviceProviders=All&serviceType=INTERNET&sizes=Tiny&sizes=Small&sizes=Medium&sizes=Large&sizes=Mega&speed=100&speedComparison=EQUAL>

³ *2015 State of the States: A report on the state of broadband connectivity in America's public schools*, EducationSuperhighway, <http://stateofthestates.educationsuperhighway.org/>

⁴ *K-12 Bandwidth Targets*, EducationSuperHighway, <http://fibertoolkit.educationsuperhighway.org/toolkit/k-12-bandwidth-targets>, and Arizona Department of Education calculations.

⁵ *In the Matter of Modernizing the E-rate Program for Schools and Libraries and the Connect America Fund*, WC Docket Nos. 13-184 and 10-90, Second Report and Order and Order on Reconsideration (rel. December 19, 2014).

quickly to take advantage of this funding opportunity. The Governor and State Superintendent's offices have worked closely with the non-profit EducationSuperHighway and estimate the total state match needed to meet the connectivity needs of rural Arizona ranges from \$8-13 million. Such a state match, with other funds available for this purpose at the federal level, could potentially draw in upwards of \$80-\$100 million in federal construction dollars that will go directly into the economies of cities and towns across rural Arizona. It will allow the remaining schools and libraries in Arizona that have been unable to take advantage of the E-rate program, to obtain the necessary funds to finance the construction of broadband infrastructure to their facilities.

To accomplish this, I propose the Commission consider establishing a new program under the Arizona Universal Service Fund ("AUSF") to provide a portion of the necessary state matching funds so Arizona can receive the maximum in federal funds available to meet this critical objective. A one-time distribution of \$8 million from the already existing AUSF could serve as a large portion of the state's match. The program would be of limited duration to take advantage of the unique E-rate opportunity provided at the federal level. This portion of the AUSF would ultimately be eliminated in its entirety after all of the funds have been disbursed to public schools and libraries. The originating purpose of the AUSF was to support telecommunications carriers that provide wireline telephone service to high cost areas in rural Arizona. The AUSF must adapt to changes in new telecommunications technology and should be used where possible to harness benefits provided at the federal level and in concert with federal funding mechanisms. For this reason, I see much promise and possibility of using the AUSF to help permanently rewire the telecommunications landscape in these rural areas.

The Commission will need to immediately undertake a rulemaking to revise the AUSF so it can be used for the purpose of providing a portion of state matching funds for broadband construction pursuant to the FCC's E-rate Modernization Order. Given the impending deadline for public schools to submit funding applications to the FCC' Administrator, the Universal Service Administrative Company ("USAC") for construction grants is likely to be in April, an emergency rulemaking is necessary to ensure that all deadlines can be met. The Commission should also begin a subsequent rulemaking later this year that examines whether the high cost portion of the AUSF continues to be necessary since its adoption in 1989.

I look forward to further discussion of this issue with my colleagues. At an upcoming Staff Meeting, the Commission should consider directing Staff to draft appropriate rules, schedule a technical workshop to discuss stakeholder comments, and determine how best to require companies to notice customers of these efforts.

This will take a concerted effort on the Commission's part, and those assisting the Commission in this endeavor, to ensure that the necessary changes to the AUSF are made and that those changes are consistent with both state and federal requirements.

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We have heard it said by Governor Ducey and others that a zip code should not characterize a child's quality of education. In the case of internet connectivity, county lines should not constitute a geographic "firewall" to scalable, affordable, and reliable high-speed internet.

The problem is real and solving it could not be any more pressing. I urge my fellow Commissioners to join the effort led by Governor Ducey and Superintendent Douglas in creating opportunity for all of Arizona students.

Sincerely



Andy Tobin
Commissioner