

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	:	
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International Comparison And Survey Requirements In The Broadband Data Improvement Act	:	GN Docket No. 09-47
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A National Broadband Plan For Our Future	:	GN Docket No. 09-51
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Inquiry Concerning The Deployment Of Advanced Telecommunications Capability To All Americans In A Reasonable And Timely Fashion	:	GN Docket No. 09-137
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Schools And Libraries Universal Service Support Mechanism	:	CC Docket No. 02-6
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	:	
Comprehensive Review Of The Universal Service Fund Management, Administration, And Oversight	:	WC Docket No. 05-195
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Comment Sought On Broadband Needs In Education, Including Changes To E-Rate Program To Improve Broadband Deployment	:	NPB Public Notice # 15
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**Iowa Department of Education
Initial Comments– NPB Public Notice # 15**

The Iowa Department of Education, on behalf of its public districts and non-public schools, respectfully submits these comments in response to the FCC's Public Notice of November 3, 2009, concerning broadband and E-rate.

Due to the short comment period, we are responding only to those topics and questions for which statewide data and information is readily available.

E-rate Issues

The E-rate program has been extremely beneficial to Iowa's 361 public school districts and their approximately 1490 school buildings as well as to our state's 182 non-public schools. Without the support of the program, services such as broadband and high-speed Internet access would be too costly for many schools. While the schools in our state have benefited from funding of Priority 1 services (telecommunications and Internet), very little Priority 2 funding has been allocated to our schools. Only a handful of individual public school buildings and none of our districts currently qualify at the 80% to 90% discount level. We contend that our schools and districts in the 60% and 70% bands are just as resource-strapped as entities in the 80% and 90% bands. To help with enhancements and modifications to the program, we propose the following observations and beliefs:

- A. E-rate has played a significant role in making broadband affordable to schools and libraries. E-rate has been a successful program that positively impacts K-12 students. Any efforts to revamp the program should ensure that the basic tenets and benefits of the program are maintained.
- B. The E-rate program, on its own, cannot solve all the broadband challenges currently faced in communities and rural areas. Other programs, such as high cost, should be strategically partnered with the E-rate program to expand broadband access.
- C. Our state network has played a major role in broadband deployment. E-rate consortium applications for broadband have benefited Iowa's school districts and helped with funding of high-speed broadband.
- D. Until such time as the \$2.25 billion cap is raised, no additions or expansions should be made to the existing eligible services list.
- E. While the current "eligible location" definition should be maintained (i.e. schools and libraries), the "eligible purpose" definition should be expanded to allow after-hours use of E-rate supported school facilities, consistent with schools' community education mission.
- F. One of the challenges in further expanding broadband demand and access at schools is the limitation of the local area networks inside school buildings. In order to allow more schools to have access to internal connections funding, modifications should be made to the discount matrix for priority 2 services.

11. E-rate Modifications

a. Currently, schools and libraries may obtain discounts on various services that provide highspeed access to the Internet as telecommunications and Internet access (priority 1) services. We are aware that applicants may characterize their funding requests according to terminology used on the eligible services list, such as DSL, "internet access via cable modem," ATM, frame relay, T-1, T-3, Ethernet, OC-3, OC-12, ATM, "internet access via fiber optics," etc. We seek information that would enable us to better understand at a more granular level what broadband services eligible applicants are buying today. Overall, what percentage of priority 1 funding is

subsidizing broadband services at what speed levels, and what percentage is subsidizing basic voice service (wireline or wireless)? Can we segment the applicant community that receives discounts on higher capacity broadband services based on specific characteristics (such as number of students, rural vs. urban, discount level, etc.)?

While we do not have specific data on the percentage of priority 1 funding committed to our schools for broadband/high-speed Internet access, the fastest growing priority 1 request is the increased demand for broadband and Internet access speeds. Funding requests for services such as local and long distance telephone and cellular service have remained relatively static.

In our state, we cannot segment or identify the “have nots” for broadband based upon characteristics such as number of students, rural vs. urban, or discount levels. Approximately 450 of the 1672 schools in our state have broadband access at speeds of at least 45 mps provided through our state-owned and operated fiber optic network, the Iowa Communications Network (ICN). With the exception of a few districts, each of Iowa’s 361 districts, the ten intermediate education agencies, and approximately 20 of the largest non-public schools is connected to the ICN¹, regardless of whether these locations are urban or rural, rich or poor. Despite the reach of the ICN into each of Iowa’s 99 counties and to most school districts, approximately 1222 Iowa schools do not necessarily have such capacity readily available to them. For example, even though a local high school has a 45 mbps circuit connecting it to the state network, the middle and elementary school buildings in the district must rely on other telecommunications’ providers to interconnect their locations back to the high school. The “last mile” in these circumstances is often challenging, both to the school and to the service provider, since far too often the telecommunications physical plant is legacy copper plant rather than fiber.

b. When applicants develop their technology plans, what factors do they consider in determining their bandwidth needs?

In their technology planning, our schools look at several factors: 1. What is the current bandwidth usage? 2. What is the projected bandwidth growth? (The biggest considerations our schools take into account include growth of bandwidth “hogs” such video streaming and video conferencing as well as one-to-one laptop initiatives). 3. What is the availability and cost of bandwidth? (Current availability of high-speed networks and cost of bandwidth certainly factor into the planning for bandwidth expansion plans).

Our experience has been that schools underestimate their bandwidth growth needs for the upcoming E-rate funding year, primarily due to the new bandwidth-intensive educational tools that are emerging. As we become even more effective in professional development that helps teachers effectively utilize these tools in their classrooms, this lack of accuracy in estimating bandwidth demand will continue. (We consider this phenomenon a good news/bad news scenario. While it is encouraging to observe that

¹ Districts large enough to have multiple high schools usually have an ICN connection to each high school building.

more of our teachers are becoming experts in their use of bandwidth-intensive learning tools, it is difficult to plan for bandwidth needs much farther in the future than a few months, which does not coincide very well with the E-rate application and funding cycles).

c. We seek comment on program modifications to maximize the use of broadband connections that are subsidized by the E-rate program. Recognizing that the statute requires that discounts be provided on services used for “educational purposes,” we seek information on whether, and if so, how, past interpretations of the “educational purposes” requirement have restricted demand aggregation at the community level to support higher capacity broadband. For example, the program could be modified to allow for use of broadband facilities at schools by the general community, rather than just by school faculty and students. We seek specific examples of whether and if so, how, expanding the permissible use of E-rate supported services could confer benefits to a larger community or encourage partnerships with private or public organizations to pool resources to maximize broadband utilization. What practical or operational impact would such a change have?

We favor expanding the definition of “educational purposes” to allow our schools to open their E-rate supported facilities (such as Internet connectivity in computer labs) to after-hours use by community members without any cumbersome requirement to cost allocate their E-rate funding. The overwhelming majority of our schools have a stated mission to better involve parents and the larger citizen population in community educational opportunities. We contend that an expansion of “educational purposes” would not impact the E-rate fund in any way since the school has broadband/high-speed Internet access sitting idle after hours. Further, it is our experience that the students most in need of support for educational purposes (e.g. Title I students) are members of families least likely to have the means to currently afford broadband in the home. By opening school facilities after hours, parents (and families) may be encouraged to participate in their children’s education.

d. We seek comment on any legislative changes that would expand the classes of eligible users. For example, the statute currently limits E-rate support to elementary schools and secondary schools, which are defined by each individual state. What would the impact be of modifying the statute to permit colleges, community colleges, pre-kindergarten, Headstart, or other entities to participate in the E-rate program?

Unless and until the E-rate fund cap is raised to a level where the actual demand from current eligible users can be met, we do not support expanding the classes of eligible users. We contend that the funding request demand figures provided in any given funding year are a severe underestimate of the actual demand for E-rate goods and services. Currently, USAC provides figures that demonstrate the demand for E-rate funding based upon Form 471 applications. But most of our schools in the lower discount bands (e.g. 70% and below) do not file for priority 2 eligible services. The discount funding level for internal connections and basic maintenance has rarely gone below the 87% point, and our schools know their priority 2 applications will likely be denied due to lack of funds. If every school and library in the nation applied for needed priority 2 goods and services, the actual demand figure would skyrocket. Modifying the statute to add more entities would put even greater demand on the fund.

e. To what extent does the fact that the E-rate program does not currently fund computers and other end user equipment inhibit the use of broadband by schools and libraries? Likewise, to what extent does the fact that the E-rate program does not currently fund training for teachers or librarians in the use of technology inhibit the use of broadband by schools and libraries? We seek specific information regarding what types of services are not available to teachers, students and library patrons due to lack of funding for end user equipment and training. If the E-rate program were to fund computers and training, what would the projected demand be? From a policy perspective, what are the potential negative consequences if such a change were adopted?

While we acknowledge the critical role of computers and teacher training, E-rate cannot and should not be the solution to all technology funding challenges facing schools. We do not believe that E-rate eligible uses should be expanded to pay for computers and other end-user equipment nor should E-rate fund professional development for teachers. Other federal programs, especially Enhancing Education Through Technology (Title IID), have served a unique function in providing all states with resources for devices such as computers, handhelds, software, and teacher professional development. We contend that the two programs are unique yet complementary in their purposes. The decreased funding of Title IID in the upcoming federal fiscal year concerns us, but we do not believe that E-rate can and should replace IID funds.

As we have noted in our response to question 11d, the actual demand for eligible services (and users) currently far exceeds the fund. We cannot support expanding to additional services (or expanding eligible users) until the fund level is adequate to meet current actual needs.

f. Currently, WANs are not eligible for support “to the extent that states, schools, or libraries build or purchase a wide area network to provide telecommunications services.” Would modifications to this rule regarding WANs, which link schools and libraries within a district or link several school districts together, result in greater broadband deployment?

We do not favor allowing applicants (i.e. schools and libraries) to build, purchase, own and/or operate wide area networks (networks which cross public right-of-ways).

We question how allowing applicants to build/purchase/own WANs will contribute to the overall goal of broadband deployment for the greater public good when such private WANs would only serve the school.

g. Are there any programmatic rules and policies that have the effect of deterring requests for broadband funding? For instance, we understand that some libraries have suggested that compliance with filtering requirements under the Children’s Internet Protection Act represents a deterrent to program participation. Are there other statutory provisions or Commission rules or policies that may reduce program participation by entities that otherwise would utilize discounts on broadband services? Commenters should be specific in identifying which current rules may create barriers to broadband deployment.

We find three general rule and policy areas to be problematic: A. CIPA requirements; B. E-rate application process; C. Invoicing and payment of E-rate funds.

A. CIPA requirements: While our schools appreciate the spirit of CIPA in protecting young people, too many of our schools are now blocking access to educationally

valuable online tools (e.g. Web 2.0 tools), for fear that they will violate CIPA requirements. In addition, the overly prescriptive requirements for public notice and hearing and on the Internet Safety Policy add one more needless burden. Schools already have well-established processes for reviewing policies, and we advocate that those processes are appropriate for public input on policies impacting Internet safety.

- B. E-rate application process: In general, the application process for E-rate funding is overly time-consuming and cumbersome for the relatively small amount of funding our schools receive (recall that most of our schools receive Priority 1 funding only). Given that the majority of our schools apply for the same priority 1 services year after year, we favor a very simple “updating” process whereby applicants would be provided an online and editable copy of their previous year’s form and could simply update information about their bandwidth, number of phone lines, etc as well as the funding amount requested.
- C. Invoicing and payment of E-rate funds: While most of our applicants elect to have discounts on their monthly bills, we find that too many of the service providers either cannot or will not provide discounts, despite FCC rules to the contrary. The reimbursement process (BEAR/form 472) creates one extra form (hurdle) for applicants to complete, especially since they too often must repeatedly contact the service provider to get form 472 verification. And if the service provider is delayed in verifying the form 472, the applicant must request an invoice extension and start the BEAR process all over again. To alleviate this problem, we urge the FCC to enforce the requirement that service providers provide the applicant option of discounts on bills.

12. E-rate Disbursement

a. One possible modification would be to create a new priority level for schools and libraries that do not have broadband or that have extremely slow Internet speeds to permit those entities to receive funding in advance of other eligible requests, which could enable such entities to “catch up.” An alternative would be to provide increased E-rate discounts for entities that wish to implement certain levels of connectivity. We seek comment on other methods by which the Commission could implement such changes, if they were proposed.

Rather than create a new priority level, we favor the proposal² submitted by the State E-rate Coordinators Alliance (SECA) in the creation of a separate “Broadband Fund,” an E-rate fund for those schools and libraries that do not currently have access to broadband. The fund, as proposed by SECA, will utilize unused E-rate funds from prior years (“roll-over funds”) and will permit applicants a 90% discount level, regardless of their discount level for other E-rate eligible services. Further, we concur with SECA’s proposal that the amortized recurring costs be allowed over a number of years and allowed to be paid from the “Broadband Fund.”

² The State E-rate Coordinators Alliance, Initial Comments-NPB Public Notice #15, November 20, 2009, at pages 20-21.

We further note that the “Broadband Fund” would not impact demand on the \$2.25 billion fund.

b. Currently, the program’s funding varies for applicants based on the number of their students who qualify for free or reduced lunch and based on their geographic location. Using this measure, discounts range from 90 percent to 20 percent of the pre-discount price for eligible services, with the poorest schools receiving funding to pay for 90 percent of eligible services. Some rural schools receive additional discounts. The Commission could recalculate these Erate discount levels to factor in not just poverty and whether the school is located in a rural area, but also whether the entity lacks broadband services. In addition, the Commission could change its priority structure to give preference for those schools that have not received funding for internal connections in several years. We seek comment on the extent to which schools that have not received funding for internal connections (Priority 2 funding) need to improve their internal connections in order to most efficiently use their broadband connections now and in the future.

As noted previously in these comments, only a handful of our schools have been funded for priority 2 services, and we contend that there are very few differences in the “need” of a 90% discount school and a school at the 60% or 70% discount level. Further, we note that too often the barrier for full utilization of broadband lies in the inadequate internal connections (LANs), particularly of our older school buildings. In order to ensure more schools benefit from funding of internal connections funds, we propose the following:

Create 4 priorities of service:

- a. Priority 1A: Broadband and Internet
- b. Priority 1B: All other current P1 services such as local and long distance telephone
- c. Priority 2A: Internal connections (with revised discount matrix; see explanation below)
- d. Priority 2B: Maintenance of internal connections (with revised discount matrix; see explanation below)

In these four categories of service, Priority 1A is funded first, Priority 1B is funded second, etc. Further, we recommend revising the discount matrix so more applicants receive priority 2 funding, especially for internal connections. In previous comments filed with the FCC by the State E-rate Coordinators Alliance (SECA)³, the following priority 2 discount matrix was proposed. We favor this revision of the matrix to provide more priority 2 funding to those schools and libraries that have not benefited from needed funding.

INCOME	URBAN LOCATION	RURAL LOCATION	P2 Discount
Measured by % of students eligible for the National School Lunch Program	P1 Discount	P1 Discount	

³ State E-rate Coordinators Alliance, *ex parte* letter to Gina Spade, September 10, 2008.

If the % of students in your school that qualifies for the National School Lunch Program is...	...and you are in an URBAN area applying for Priority 1 services, your discount is	...and you are in a RURAL area applying for Priority 1 services, your discount is	If your P1 Discount Is..... Your P2 Discount will be....	
Less than 1%	20%	25%	20-29%	20%
1% to 19%	40%	50%	30-39%	30%
20% to 34%	50%	60%	40-49%	40%
35% to 49%	60%	70%	50-59%	50%
50% to 74%	80%	80%	60-69%	60%
75% to 100%	90%	90%	70-79%	65%
			80-89%	70%
			90%	75%

c. To what extent have current rules inhibited the development of or expansion of existing state, regional or local broadband networks? Are there changes to the Commission’s rules that would facilitate these types of networks?

It does not appear that current FCC rules either inhibit or encourage the development or expansion of existing broadband networks. We do contend, however, that the form 471 filing and subsequent review of consortia applications for large broadband networks, is a needlessly cumbersome process.

The state-owned and operated Iowa Communications Network (ICN) provides a minimum of 45 mbps connectivity to approximately 450 school locations and 52 public libraries. In order to file for discounts on broadband and videoconferencing services, the Iowa Department of Education files a consortium form 471 application. The filing of a single consortium application greatly benefits our schools and libraries and should simplify the review process since only one application is needed for approximately 500 entities. The greatest frustration we have faced in filing the consortium application is the prolonged review process we annually experience. Too often we have not received a funding commitment decision letter until we are six or more months into the funding year, putting a burden on already-strapped state government budgets to cover all costs while we await a funding decision. While we certainly concur that a responsible and thorough review is warranted, our annual consortium applications have contained the same priority 1 services. It would seem prudent that rather than have the same review process year after year, the current in-depth review could be instituted once every three to four years, rather than annually.

In addition, prior to the form 471 filing each year, large state or regional consortia like ours face a challenge each year in correctly determining the entities that will elect to be part of the consortia. With nearly 500 independent entities (districts, non-public schools, and public libraries), there are naturally eligible entities that will fail to inform the

consortium leader (in our case the Iowa Department of Education) in a timely manner that they are “in” or “out.” Given the complexity of the E-rate process as well as local turn-over of E-rate contacts, too often our eligible entities will change their minds concerning whether they wish to be included in the consortium application until after 471 consortium filing. While we greatly appreciated the *Bishop Perry*⁴ decision which allowed more flexibility to change block 4 entities after filing was completed, the recent changes in interpretation of this decision have created problems for consortia applications. Even with properly executed Letters of Agency (LOAs), we find that adding and deleting consortium members cannot always reasonably occur within the allocated 15 days after the date of the Receipt Acknowledgement Letter (RAL). Further, the interpretation of adding/deleting block 4 entities is limited to clerical and ministerial errors. We request that adding and deleting consortium members be permitted beyond the 15-day RAL correction period to include up to the date of the funding commitment decision letter. And we request that the adding and deleting of entities be allowed beyond the narrow scope of clerical and ministerial errors. (*i.e.* We request that the *Kan Ed*⁵ decision be revisited to permit “informed” changes to consortia membership prior to FCDL).

d. If the Commission established a national broadband goal for schools or libraries, what effect would that have on demand for E-rate funding?

Certainly any special focus on broadband will increase demand on the fund. We recognize that the special “Broadband Fund” we advocated in 12a. means that roll-over funds previously used to fund priority 2 applications will no longer be available. Therefore, we advocate raising the cap on the annual \$2.25 billion fund.

13. E-rate Funding: We seek comment on the implications of modifying E-rate funding to support additional broadband deployment and how changes to the E-rate program would improve the ability of the program to meet applicant needs for broadband.

a. To what extent does the annual E-rate funding cap of \$2.25 billion limit the extent of broadband deployment by eligible schools and libraries? What are the financial or programmatic implications of increasing the cap to fund additional services not currently covered by E-rate? What are the implications of indexing the cap to inflation? Would there be specific implementation issues that would arise related to such changes?

As previously noted, if the annual funding cap of \$2.25 billion remains in place, any increase in demand on broadband will likely reduce the applicant pool receiving priority 2 funds. Already there is unmet demand for priority 2 requests. The majority of our schools do not even apply for priority 2 since their past experiences indicate that the

⁴ In the Matter of Request for Review of the Decision of the Universal Service Administrator by Bishop Perry Middle School, New Orleans, LA, *et al.* File Nos. SLD-487170 *et al.* FCC 06-54 (Order Released May 19, 2006).

⁵ In the Matter of Request for Waiver of the Decision of the Universal Service Administrator by Kan-ed, Kansas Board of Regents, File No. File No. SLD-449052, FCC 06-170 (Order Released November 22, 2006) at p. 5.

funds available will not reach their discount level. We fail to understand how additional eligible services should be added when so many needy applicants have never received priority 2 funding.

The funding cap has remained the same since the inception of the program, even though bandwidth needs have grown rapidly (and will likely continue an upward growth pattern). We favor using some sort of growth index in order to raise the cap.

b.To the extent the Commission modifies its E-rate rules to encourage additional requests for funding for broadband services under priority 1, how would that change likely impact the availability of funding for priority 2 services?

In 12a, we proposed creation of a special “Broadband Fund.” Without raising the cap, we recognize that the redirection of roll-over funds into the “Broadband Fund” will diminish the funds available for priority 2. Without raising the cap, fewer applicants will receive priority 2 funds.

c.To the extent that commenters believe that providing additional funding above the current cap would advance broadband deployment, we seek comment on what additional amounts would be needed to achieve specific levels of broadband connectivity. Commenters should identify all assumptions regarding their dollar estimates.

Creation of the special “Broadband Fund” will not, by itself, achieve any specific target levels of broadband connectivity. While the “Broadband Fund” and its 90% discount level will alleviate some deficiencies in broadband availability, other policies and funding sources will be needed to ensure nationwide broadband availability.

d.The Commission could decrease the discount levels for basic telecommunications, or otherwise modify the existing discount levels, to increase the amount of E-rate funds available for broadband deployment. What would be the effect of such a change?

Lowering the discount levels for basic telecommunications and other priority 1 services would have a negative impact on our schools. The savings currently realized through priority 1 discounts allow schools to re-channel those savings into technology-related goods and services which are not E-rate eligible (e.g. computers and teacher training). A reduction in discounts would mean fewer funds to spend on those items that allow broadband to be effectively used.

As noted elsewhere, we do favor decreasing the discount level for priority 2 purchases. Internal connections are essentially non-recurring expenses rather than the on-going expenses of priority 1.

e.Would eliminating some of the services currently eligible and expanding eligibility to other services result in greater levels of broadband connectivity? Commenters should specifically articulate how proposed changes in the eligible services list would enable greater broadband deployment.

We do not favor expanding the eligible services list nor do we recommend eliminating current eligible services. We do caution, however, that current interpretation of the

eligible services list, especially for services such as web hosting, is causing confusion for many of our applicants.

In item 12b, we recommended consideration of four priority levels of eligible services. We strongly urge the FCC to fund all internal connections requests (what we term “priority 2A”) prior to funding basic maintenance of internal connections requests (what we term “priority 2B”).

f. What other costs not currently covered under the E-rate program would be incurred if schools and libraries could purchase additional broadband capacity? Would schools and libraries have to upgrade personal computer equipment, internal wiring, servers, and other hardware?

In the experience of our schools, educational/classroom uses drive the demand for broadband capacity upgrades. Our schools struggle to keep up with funding for computers, internal networks and the related hardware and software to operate those networks. One of the biggest costs is the continual need for teacher professional development in how best to effectively incorporate new technologies and educational applications into their classrooms.

g. Additionally, we seek comment on suggestions for coordinating with federal or state agencies on grant programs that could supplement the Commission’s E-rate program. For example, the United States Department of Education’s Enhancing Education Through Technology State Program (Ed Tech) provides grants to state educational agencies to improve student achievement through the use of technology in elementary and secondary schools. Money from grants such as this, in combination with E-rate funds, could greatly increase a school’s broadband connectivity.

The E-rate program with its focus on connectivity has been effective in supporting the goals of the Title IID program (Enhancing Education Through Technology or EETT) with its focus on teacher professional development and classroom technology uses. Each program has a unique and yet mutually supportive function. Neither program should attempt to subsume or replace the other. As we seek to ensure that educational technology is not a “stand alone” program but rather supports the learning goals of our schools, we want to ensure that EETT is part of the larger plan for increasing student achievement. E-rate provides support for broadband/Internet connectivity so that online and distance learning resources can be brought into our classrooms.

h. Alternatively, E-rate funds could be used in conjunction with funds from other entities to support broadband projects. For example, upon a state’s recommendation, a particular project might be funded by having the state pay for the computers and training, and providing E-rate discounts for the broadband connection. Are there other specific ways the Commission could better leverage the benefits of E-rate funding through coordination with other federal, state, local or non-profit programs that seek to advance broadband deployment?

Certainly schools and libraries are not the only entities in our communities and rural farmsteads seeking greater access to affordable broadband. We understand the challenge faced by the telecommunications providers in our state in deploying broadband, especially fiber, to every community and throughout the countryside. Naturally the larger cities have enough population density to make investment by the telecommunications industry cost effective. The challenge lies in our smaller

communities and the very rural countryside where the return on investment for service providers is difficult.

While we do not recommend expanding the eligible users of the E-rate fund, planning and deploying broadband infrastructure for the greater good is a laudable goal. We urge the FCC to examine the inter-relationship among and between the other USF programs (especially high cost) to see if the two programs can be mutually supportive for broadband deployment.

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November 20, 2009