Tamara Preiss
Vice President
Federal Regulatory Affairs

1300 I Street, NW, Suite 400 West
Washington, DC 20005

Phone 202 515-2540
Fax 202 336-7922
tamara.preiss@verizon.com

October 7, 2010

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: <u>High-Cost Universal Service Support, WC Docket No. 05-337; A National Broadband Plan for Our Future, GN Docket No. 09-51</u>

Dear Ms. Dortch:

Yesterday, Chris Miller and Maggie McCready met with Angie Kronenberg, Wireline Legal Advisor, and Louis Peraertz, Acting Legal Advisor for Wireless, International, and Public Safety Issues, for Commissioner Clyburn. Mr. Miller and Ms. McCready also met separately with Christine Kurth, Policy Director and Wireline Counsel for Commissioner McDowell.

The purpose of the meeting was to discuss the anticipated Notice of Proposed Rulemaking regarding universal service mobility funding, described in the National Broadband Plan, to improve wireless coverage and speeds in those areas that lack 3G service today. Mr. Miller and Ms. McCready expressed overall support for the universal service reforms proposed in the Plan. With respect to mobility funding in particular, they indicated that targeted, one-time infrastructure funding could help promote the Commission's broadband objectives in certain areas. They indicated that the Commission should allow carriers that participate in the program to use mobility funding to deploy either 3G or 4G services because there are areas that do not have 3G coverage today that will likely move directly to 4G. They addressed Verizon Wireless's rural LTE partnership program and said that, depending on how the anticipated mobility program is structured, those carriers that lease Verizon spectrum to offer 4G services in rural areas may be candidates to put this support to good use.

In addition, Mr. Miller and Ms. McCready discussed the need for clearly defined obligations and performance metrics so that carriers can make informed decisions about program participation, as well as the need to structure the geographic scope of supported areas to account for CMRS license areas and network deployment. Finally, they addressed the funding distribution mechanism and again expressed support for competitive bidding and discussed Verizon's previously filed proposal for reverse auctions (see attached). They indicated that a competitive bidding approach will maximize the potential to gain useful knowledge about the cost of wireless broadband deployment and how to tailor support conditions.

This letter is being filed electronically pursuant to Section 1.1206 of the Commission's Rules. Please contact me should you have any questions.

Sincerely,

Attachment

cc: (via e-mail)
Angie Kronenberg
Louis Peraertz
Christine Kurth

Kathleen Grillo
Vice President
Federal Regulatory

1300 I Street, NW, Suite 400 West
Washington, DC 20005

Phone 202 515-2533
Fax 202 336-7922
kathleen.m.grillo@verizon.com

February 9, 2007

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: In the Matter of Federal-State Joint Board on Universal Service, High Cost Universal Service Support, WC Docket No. 05-337; In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45

Dear Ms. Dortch:

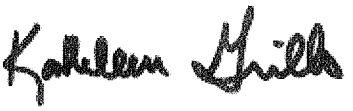
On February 8, 2007, Susanne Guyer, Kathleen Grillo, Ed Shakin and Dennis Weller of Verizon and Anne Hoskins of Verizon Wireless met with Ian Dillner, Legal Advisor to Commissioner Deborah Taylor Tate, Thomas Navin, Chief of the Wireline Competition Bureau, Donald Stockdale, Deputy Bureau Chief of the Wireline Competition Bureau, Amy Bender, Legal Counsel to the Bureau Chief, Jeremy Marcus, Chief, Telecommunications Access Policy Division, Vickie Robinson, Deputy Division Chief, Telecommunications Access Policy Division, and Ted Burmeister and Katie King of the Telecommunications Access Policy Division to discuss the above-referenced proceeding. In addition, Kathleen Grillo, Chris Miller, and Dennis Weller of Verizon and Anne Hoskins of Verizon Wireless spoke by telephone with Scott Deutchman, Legal Advisor to Commissioner Michael J. Copps.

In addition, on February 8, 2007, Susanne Guyer, Kathleen Grillo, and Dennis Weller of Verizon spoke by telephone with Ray Baum, State Chair, Federal-State Joint Board on Universal Service, John Burke and Billy Jack Gregg, members of the Joint Board on Universal Service, Peter Bluhm, Lori Kenyon, Michael H. Lee, Phil Nyegaard, Denise Parrish, Peter A. Pescosolido, Jennifer Prime, Jennifer A. Richardson, Vickie Robinson, Eric Seguin, and Jacob Williams of the Joint Board staff.

The purpose of these discussions was to review Verizon's proposal regarding the use of competitive bidding or auctions to distribute federal universal service support. The attached formed the basis of those discussions.

Please contact me directly if you have any questions.

Sincerely,



Attachment

cc: Hon. Ray Baum
Hon. John D. Burke
Hon. Billy Jack Gregg
Amy Bender
Peter Bluhm
Ted Burmeister
Scott Deutchman
Ian Dillner
Lori Kenyon
Katie King
Michael H. Lee
Jeremy Marcus
Thomas Navin
Phil Nyegaard
Denise Parrish
Peter A. Pescosolido
Jennifer Prime
Jennifer A. Richardson
Vickie Robinson
Eric Seguin
Donald Stockdale
Jacob Williams

Kathleen Grillo
Vice President
Federal Regulatory

1300 I Street, NW, Suite 400 West
Washington, DC 20005

Phone 202 515-2533
Fax 202 336-7922
kathleen.m.grillo@verizon.com

February 9, 2007

Hon. Deborah Taylor Tate
Federal Chair, Federal-State Joint Board on Universal Service
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Hon. Ray Baum
State Chair, Federal-State Joint Board on Universal Service
Oregon Public Service Commission
550 Capitol Street, N.E., Suite 215
P.O. Box 2148
Salem, Oregon 97308

Re: In the Matter of Federal-State Joint Board on Universal Service, High Cost Universal Service Support, WC Docket No. 05-337; In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45

Dear Commissioner Tate and Commissioner Baum:

This proceeding is a unique opportunity to put in place meaningful reforms that will stabilize the universal service fund, create better incentives for companies to serve rural America in efficient and innovative ways, and lower the cost of access to communications services for all consumers. The FCC and the Joint Board have shown constructive leadership on universal service reform in order to bring benefits to consumers and stabilize the fund. It is the right time for these important changes. More than ever before, consumers of communications services have options – especially from new offerings by cable, voice over IP, and wireless providers – and they are taking advantage of them. But at the same time, consumers are faced with increasing costs as they continue to support a universal service system that is growing larger every year.

The need for reform is becoming more urgent as the high cost fund now surpasses the $4 billion mark, with approximately $1 billion flowing to competitive eligible telecommunications carriers ("CETCs") annually. A solution is needed, and the answer is a system that not only controls the growth of the fund, but provides more rational incentives to providers and ensures access to important services. Reforms must also create and sustain an environment that

promotes innovation and efficiency gains and makes sure that consumers receive the benefit of these innovations.

For all these reasons, Verizon and Verizon Wireless (hereinafter "Verizon") propose that reform should involve the use of auctions or competitive bidding as the means to better target universal service support. This letter proposes the basic structure for and path to such auctions. Attached is an Appendix that outlines in greater detail one possible way to design and structure such auctions, although other approaches and designs may be appropriate and workable.

The reform plan proposed here is a careful and measured approach. It suggests immediate action to address the most pressing concerns. It proposes implementing competitive bidding quickly and on a limited basis, and where it can provide the greatest benefit. It then gives the Joint Board and the Commission the flexibility to assess the results of these auctions, and to decide whether to extend their use more widely.

Verizon's proposal is as follows:

First, stabilize the fund by placing a reasonable cap on current support levels that is designed to control the growth the fund has experienced in recent years, introduce better incentives for all ETCs, and prepare for further reform;

Second, establish an administrative framework for competitive bidding, which would include the auction design;

Third, implement auctions to allocate funding for wireless CETCs. These auctions would be held in areas that currently support more than one wireless CETC, and would select a single wireless CETC to receive support. Once these auctions have been completed, a separate set of auctions should be held for wireline ETCs in areas where there is currently at least one wireline CETC, to select a single wireline provider of universal service for the area.

Fourth, after some reasonable period, the FCC would review the experience gained with the CETC auctions, and consider developments in technology and rural markets to determine an appropriate method for extending market-based efficiencies to additional areas. These methods could include:

- A single auction in which both wireline and wireless ETCs would participate, which would select a single universal service provider for each area.
- The use of representative bidding, based on statistical analysis of the auction results, to adjust support for ETCs whose support had not yet been determined by an auction.

STEP ONE: STABILIZE THE FUND BY PLACING A REASONABLE CAP ON HIGH COST SUPPORT AT CURRENT LEVELS

As commenters in this docket and many others have observed repeatedly, the high cost fund has grown at an alarming pace in recent years and this rate of growth threatens both the viability and the long term sustainability of the fund.[1] It is also increasing the amounts that consumers must spend on communications services.

A reasonable cap on the high cost fund is critical for at least three reasons.

First, the growth in the fund threatens core universal service goals if not contained. The USF contribution factor has risen dramatically in recent years. In 1998, the contribution factor averaged 3.16 percent and has increased more than three-fold since, now standing at 9.7 percent.[2] As the Fifth Circuit predicted more than five years ago, "excess subsidization in some cases may detract from universal service by causing rates unnecessarily to rise, thereby pricing some consumers out of the market." *Alenco Communications v. FCC,* 201 F.3d 608, 620 (5th Cir. 2000).

Second, the current high cost mechanisms do not take into account the benefits and availability of new competition. Consumers increasingly view cable telephony, VoIP, and wireless as viable alternatives to wireline phone service. Competition from these intermodal providers has increased substantially over the last several years and has brought consumers exciting new services.[3] The spread of new intermodal competition in various ways and degrees into all parts of the country has advanced universal service goals tremendously. As intermodal competition thrives – and drives down prices – subsidies should be getting smaller or even disappearing altogether in areas where competitive carriers operate without subsidy. But just the

---

[1] The Universal Service Administrative Company ("USAC") now projects that in the first quarter of 2007 the high cost fund will top $4.3 billion. *See* USAC, *HC02 - High Cost Support Projected by State – 1Q2007,* http://www.usac.org/about/governance/fcc-filings/2007/quarter-1.aspx. This is more than double the size of the fund just seven years ago. *See* USAC, *Universal Service Fund Facts-High Cost Program* Data, 1998-2005 Disbursements by *Calendar Year* (2005)(Unaudited), http://www.universalservice.org/about/universal-service/fund-facts/fund-facts-high-cost-program-data.aspx#calendar.

[2] *See* FCC, Industry Analysis & Technology Division, Wireline Competition Bureau, *Trends in Telephone Service, Table Compiled as of April 2005*, at Table 19.16 (June 21, 2005); *see also* FCC, *Proposed First Quarter 2007 Universal Service Contribution Factor*, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-2506A1.pdf.

[3] *See* Comments of Verizon and Verizon Wireless at 3-10, WC Docket No. 05-337 (filed October 10, 2006) ("Comments of Verizon").

opposite is happening. Subsidies are increasing even as competition explodes and rates continue to fall over time.[4]

Third, a reasonable cap on support at current levels will put in place better incentives for all carriers and allow them to adapt to the new marketplace. The high cost fund in its current form is a product of an earlier time, before competition and technology transformed the industry. Today, these forces are compelling all providers to become more efficient and more creative, and to develop new services and new sources of revenue. Yet the current structure of the fund discourages supported companies from transforming themselves in a way that advances both their own long-term interests and those of the customers and communities they serve. Capping support would begin the process of introducing market incentives for innovation and efficiency – a process that would subsequently be carried forward through competitive bidding.

For example, support from the rural high cost fund is based on a comparison of each ILEC's revenue requirement per line with a nationwide benchmark. This may have made sense at one time in a less competitive market, but in today's dynamic market, where the number of traditional telephone lines is shrinking, it is creating anomalous results and bad incentives:

- Under the current rules, as a rural ILEC loses lines, its cost per line increases. Because CETCs receive the same amount of support per-line as the ILEC, over time this system also increases the per-line support for each CETC – even though the CETC's per-line cost is, if anything, falling as it gains customers.

- Each rural ILEC can increase its support if its cost per line grows faster than the national average. This creates an artificial incentive that may bias ILEC decision-making, since the system rewards higher expenditures and penalizes cost reduction.

- The ILEC portion of the high cost loop fund is capped, but that cap produces unanticipated effects, creating winners and losers among the ILECs, and a misalignment of incentives. When the total amount of support would otherwise push the fund above the cap, USAC raises the nationwide benchmark in order to ensure that disbursements to rural ILECs do not exceed the cap. This has the effect of eliminating support for some study areas where per-line costs had previously been just above the benchmark. The application of the cap thus has a dramatic impact on the support to those ILECs. Yet ILECs with higher costs – whose spending may have caused the fund to exceed the cap – have no incentive to change their behavior.

---

[4] The Progress & Freedom Foundation, *Digital Age Communications Act: Preliminary Proposal of the Universal Service Working Group*, at 9-10 (Rel. 1.0, Oct. 2005) (footnote omitted) ("Although the costs of providing telephone service have fallen significantly over time, [Universal Service Fund] spending has increased from $15 per household in 1993 to $52 per household in 2003.").

For these reasons, as the first step in the reform process, the Commission should stabilize the fund and create better incentives for all ETCs. This can be done by placing a reasonable cap on the fund, based on current support levels. Support would be capped for each study area, with two separate caps, one for wireline ETCs and one for wireless ETCs.

The cap on support for wireline ETCs in each study area would be the total amount received by all wireline ETCs in that area in a base year, and would include support from all federal mechanisms that provide high cost funding (the high cost loop fund (both rural and non-rural), local switching, interstate access support (IAS), and interstate common line support (ICLS)). If more than one wireline ETC receives support in a study area, the support amount would be apportioned among them based on their relative lines.

The cap on support for wireless ETCs in each study area would be the total amount received by all wireless ETCs in that area in a base year from all the support mechanisms listed above. In a study area where there is more than one wireless ETC, the capped support would also be apportioned among them based on their relative lines.

In order to reflect changes in the overall need for universal service in each study area, each year the total wireline cap and the total wireless cap in the study area would be adjusted by the percentage change in the number of households in the area.

The particular structure proposed here, two separate funding limits, applied at the study area level, will accomplish two important goals: (1) It will end the churn in support – among study areas, and between wireline and wireless ETCs – caused by the current rules. As explained above, the current operation of the high cost loop fund is producing winners and losers as lines and support amounts change each year. The more targeted cap described here would minimize those shifts and stabilize wireline support for each study area; (2) By applying separately to wireline and wireless ETCs, the proposal would curtail what has been the largest source of growth in the USF in recent years – new funding to CETCs.

STEP TWO: ADOPT THE AUCTION DESIGN AND FRAMEWORK

After the cap is in place, the Commission should adopt a framework for the auction process. This framework would include administrative arrangements as well as the design of the bidding process itself. For auctions to be successful, proper design is critical. Although the exact details of an auction may be flexible, the following are the key aspects which are necessary in this context:

Areas For Auction

As part of the framework, the Commission should choose the geographic areas for which auctions would be held. These areas would then serve as the "building blocks" which bidders could, if they choose, package together in the flexible bidding process described below. Auction areas should be small enough to allow the auctions to target support where it is most needed, but

not so small as to create unnecessary complexity. Although other areas of similar size may be appropriate, the most logical choice among the current alternatives (at least initially) is wire centers. These areas tend to reflect information about where rural populations are clustered, and thus distinguish between high and low density areas, since ILEC switches have generally been located in population clusters, for example in the center of a small town. Although CETCs have different network topologies, they have also tended to locate their facilities in population clusters for similar reasons, and these areas therefore tend to be correlated with ILEC wire centers. For this reason, wire centers are a reasonable choice for the areas to be auctioned.

Package Bids

The Commission should adopt an auction design that allows bidders flexibility to submit bids for individual wire centers, or bids for packages of wire centers. An auction with this package bidding feature is called a "combinatorial" auction.

Each bidder will be in the best position, based on its own business plan and market forecasts, to determine whether it is better to bid on individual areas separately, or in a group or package. By designing the auction this way, the Commission and the Joint Board would also gain the flexibility to use relatively small, targeted areas, such as wire centers, as the building blocks for this process. In effect, rather than deciding itself how these areas should be grouped together, the combinatorial auction allows the Commission to obtain this information from the market, through the decisions of the bidders.

By allowing for smaller building blocks such as wire centers, the flexible auction design would also provide more precise targeting of support, and address concerns about "cherry-picking," without ballooning the fund. At the same time, it would give CETCs more flexibility to plan their market entry in ways that fit their technologies and business plans.

Flat Payments To Auction Winners

Auctions for high cost support should be structured around bids for a flat amount of support. This approach offers several advantages. First, it eliminates the need to apportion support among different providers, avoiding controversial issues regarding whether support should be provided to primary or second lines, wireless handsets, or on some other basis. It also eliminates one of the main sources of growth in the fund in recent years: the addition of multiple handsets by each household.

Each bid can be a flat amount of subsidy for a given area, or package of areas. This format is simpler and puts the responsibility for estimating demand in a given area where it belongs – with the bidders themselves. ETCs are in a much better position than the auction administrator to know their own revenue expectations and cost structures. In preparing their bids, ETCs will evaluate the competitive landscape and project their own growth should they win the bid to provide supported services in an auctioned area.

Finally, by providing support in a flat amount, this approach avoids distorting the incentive each ETC would have to gain or lose a customer. The benefit to any ETC of gaining a customer would simply be the additional revenue the ETC would obtain from that customer. Further, the auction gives the Commission, for the first time, a means to set the flat support at the amount that is just sufficient to make an ETC willing to undertake the burden of the universal service responsibility. Taken together, these features ensure that the proposed framework would not distort competition at the margin among ETCs in an area and would not prevent competition from occurring in an area that would otherwise have supported it.

Auction Reserves

Any auction for universal service support should include a reserve amount, which is the maximum bid that would be accepted. Reserves are commonly used in auctions to limit the range of possible outcomes. In the universal service context, the reserve ensures that the support determined by the auction is no greater than the amount of support provided prior to the auction.

The reserve reflects the limit of what the auction administrator would be willing to pay. By selecting the most efficient provider, and identifying the support amount that provider is willing to accept, the auction offers the best opportunity to obtain universal service on terms most advantageous to the public. However, if no bid lower than the current support amount is submitted, the administrator is better off reverting to the existing support arrangement, which would continue in an auctioned area where the reserve is not met.

The auction design included here suggests two reserves that would each have to be satisfied: one that applies at the study area level, and a second reserve that applies at the wire center level. The aggregate reserve at the study area level would be the capped amount established at the beginning of the process. The wire center reserve should be based on a pro-rata distribution of the study area support to each wire center, but with some additional amount added to allow for the auction results to direct more support to higher cost wire centers, and less to lower cost ones. This means that the sum of the individual wire center reserves in a study area would be greater than the aggregate reserve for the study area as a whole. However, the separate imposition of the study area reserve would ensure that the auction cannot result in an increase in support for any study area.

STEP THREE: AUCTIONS FOR WIRELESS AND WIRELINE CETCs

It makes sense for the Commission and the Joint Board to start, as an initial step, with auctions for wireless CETCs in areas in which multiple wireless CETCs currently operate and receive support. This would be followed by a parallel set of auctions for wireline ETCs, in areas where at least one wireline CETC has been designated.

Wireless CETCs operate on fundamentally different cost structures than ILECs – a fact that has long made the Commission's portability rules, which tie CETC support to the ILEC's per-line costs, a primary target for reform. Starting the competitive bidding process with

wireless CETCs would immediately help to connect wireless CETC subsidies with the actual cost of providing wireless services, as wireless CETCs bid against each other for support in those areas eligible for auction. A wireless CETC auction will ensure that affordable wireless service is available in high cost areas, and that such service is provided by the most efficient wireless provider.

Using an auction to select a single wireless CETC in each area is an important step toward rationalizing distributions from the fund. Support to CETCs (primarily wireless carriers) has caused substantial growth in the fund over the last few years. In 1999, wireless carriers received approximately $500,000 in high cost support.[5] By 2002, wireless CETC support had increased to approximately $45 million. *Id.* In 2005, wireless CETCs received more than $600 million in high cost subsidies and through May of last year, that number increased to more than $800 million. *Id.* At this rate, CETCs will soon account for approximately 25 percent (if not more) of all high cost subsidies. While in many areas a wireless CETC may ultimately prove to be the most efficient provider of universal service, funneling more and more support to fund duplicative networks in high cost areas should not continue. With wireless carriers and their customers now paying a significant share of the federal USF,[6] wireless consumers will be harmed by continual increases in USF assessments. The public interest will be served by stabilizing the universal service fund and directing wireless subsidies to the most efficient providers through the use of competitive bidding.

The Commission should also allow for a reasonable transition for wireless CETCs that are receiving support today, but do not receive support after the auction. The ILEC, and any wireline CETC in that area, would continue to receive support on the basis of the capping mechanism established in Step 1.

Once the wireless CETC auctions have been completed, the Commission should also nominate for auction any area where there is at least one wireline CETC. In these auctions ILECs and wireline CETCs would participate, and each auction would select a single wireline provider of universal service for the area. The reserve for this auction would be the total amount of support received by wireline ETCs in the area prior to the auction. These auctions would be held in a relatively limited number of areas, since wireline ETCs are designated in about 90 study areas today.

---

[5] *See* USAC, *Distribution of High Cost Support Between Wireless and Wireline CETCs*, http://www.universalservice.org/_res/documents/about/pdf/fundfacts-High-Cost-Support-Between-CETCs-1998-2006.pdf.

[6] *See* Alltel Ex Parte Presentation, CC Docket No. 96-45 (Oct. 20, 2006) at Attach. at 12.

STEP FOUR: THE COMMISSION AND THE JOINT BOARD REVIEW AUCTION EXPERIENCES AND DECIDE NEXT STEPS

After some reasonable period, the FCC should initiate a review of its experience with the wireless and wireline CETC auctions. The Commission would consider the development of markets in rural areas and changes in technology and determine next steps. Options would include:

(1) **Conducting general auctions.** The Commission could decide to move forward with general auctions in which both wireline and wireless ETCs would participate. Such an auction would be held in each high cost area where there is at least one CETC, and would select a single universal service provider for the area to receive the support determined by its bid.

(2) **Using representative bidding.** The Commission could use the results of auctions, where they have been held, to adjust the support of ETCs whose support has not yet been established by an auction. This use of "representative auctions" is an established practice in other applications.[7] Once it has assembled a representative sample of results from the areas where bidding has been completed, the FCC could commission an econometric study that would relate the auction results to the characteristics of a high cost area, such as size and density. This econometric model would estimate the likely results of an auction in an area with given characteristics.

Results from wireless auctions could be extended to wireless CETCs operating in areas where auctions had not yet been completed. Results from wireline auctions could be applied to wireline ETCs whose support had not yet been set by auction.

The support amount for these ETCs would then be set at the lower of the capped support amount or the amount estimated from the auction results. If an ILEC believes that the estimated support should not be implemented in a given area, it would have the option of nominating the area for an auction.

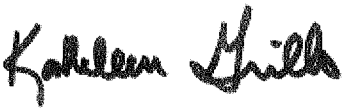
---

[7] *See* Comments of Verizon and Verizon Wireless at 27-28.

* * *

In its present form, universal service funding provides companies with the wrong incentives, discourages innovation, and has increased the amounts consumers pay for communications services. The approach outlined here will help remedy these problems and transform the fund into an efficient, market-oriented system that advances the core universal service objectives.

Sincerely,



Attachment

cc: Chairman Kevin J. Martin
Commissioner Jonathan Adelstein
Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Hon. Lisa Polak Edgar
Hon. Larry S. Landis
Hon. John D. Burke
Hon. Billy Jack Gregg
Daniel Gonzalez
Michelle Carey
Ian Dillner
Scott Bergmann
Scott Deutchman
John Hunter
Thomas Navin
Donald Stockdale
Amy Bender
Jeremy Marcus
Vickie Robinson
Ted Burmeister
Katie King
Gary Seigel
Phil Nyegaard
Jacob Williams
Jennifer A. Richardson
Peter Bluhm
Peter A. Pescosolido
Joel Shifman
Jeff Pursley
Lori Kenyon
Aram Shumavon
Eric Seguin
Brad Ramsay
David Dowds
Michael H. Lee
Philip McClelland
Denise Parrish

Appendix

Modernizing Universal Service
A Design for Competitive Bidding

This appendix illustrates one way the Joint Board and the FCC could implement a competitive bidding process for universal service obligations.

1) Summary

The auction design outlined in this appendix would introduce a more efficient framework for the distribution of support to universal service providers in high cost areas. This could be done in a series of steps:

First, immediate measures would be taken to stabilize the fund, and to introduce better incentives for all ETCs, by capping support based on current levels.

Second, the FCC would adopt a framework for competitive bidding, including administrative arrangements and the design of the bidding process itself.

Third, to initiate the use of competitive bidding, the Commission would prompt auctions in high cost areas where there are multiple wireless CETCs. These auctions would select a single wireless provider of universal service for each area. The incumbent local exchange companies in those areas would continue to receive support based on the capping mechanism. Once the wireless CETC auctions had been completed, the FCC would also nominate any area where there is at least one wireline CETC. These auctions would select a single wireline provider of universal service for each of those areas.

Fourth, after some reasonable period, the FCC would review the experience it had gained with the CETC auctions, and consider developments in technology and rural markets to determine an appropriate method for extending market-based efficiencies to additional areas. These methods could include:

- A single auction in which both wireline and wireless ETCs would participate, which would select a single universal service provider for each area.
- The use of representative bidding, based on statistical analysis of the auction results, to adjust support for ETCs whose support had not yet been determined by an auction.

2) Stabilize the Fund

The FCC should start by taking immediate steps to stabilize the fund, bring fund growth under control, and put in place incentives for all ETCs to adapt to changes in the market and become more efficient. This would establish a starting point for the implementation of competitive bidding.

Support would be capped for each study area. There would be two separate caps in each study area, one for wireline ETCs and one for wireless ETCs.

- **Cap for wireline ETCs**. The cap on support for wireline ETCs would be the total amount received by all wireline ETCs in the study area in a base year (which could be the most recent twelve-month period for which data are available when an order becomes effective). The cap would include receipts from all programs for high cost areas (the high cost loop fund (rural and non-rural), local switching, interstate access support (IAS), and interstate common line support (ICLS)).[1]
    - If there is more than one wireline ETC in the study area, the capped support amount would be apportioned among them on the basis of their relative lines.
    - The current cap on the ILEC portion of the high cost fund is producing winners and losers as lines and support amounts change each year. The mechanism described here would minimize those shifts and stabilize wireline support for each study area.

- **Cap for wireless ETCs.** The cap on support for wireless ETCs would be the total amount received by all wireless ETCs in the study area in a base year (which could be the most recent twelve-month period for which data are available when an order becomes effective). The cap would include support from all programs for high cost areas (the high cost loop fund (rural and non-rural), local switching, interstate access support (IAS), and Interstate Common line support (ICLS)).[2]
    - If there is more than one wireless ETC in the study area, the capped support amount would be apportioned among them on the basis of their relative lines.

---

1 For ILECs, once the cap described here has been applied, it would replace the calculation that is done today to determine support amounts from each of the existing funds. The exception would be the calculation for rate-of-return ILECs of the support amounts for local switching and ICLS, which would be calculated as they are today. High cost subsidies in each rate-of-return study area would then be adjusted to bring the total amount of support within the study area cap. The current cap on the ILEC portion of the high cost fund would no longer be applied. For price cap ILEC study areas, the total amount of wireline support in each area should simply be capped, and if there are wireline CETCs in the area the support would be apportioned among the wireline ETCs on the basis of their relative lines.

2 For wireless ETCs, none of the existing funds is capped today. The total amount of funding to wireless CETCs in each area should simply be capped, and the apportionment among wireless CETCs on the basis of their relative lines would replace the existing fund calculations.

- Increased support for wireless ETCs represents a large proportion of the growth in the federal mechanisms in recent years. The cap would stabilize the fund and provide a starting point for the wireless ETC auctions.

- **Adjustment of the caps**. Each year, the total wireline cap and the total wireless cap in each study area would be adjusted by the percentage change in the number of households in the study area. This would allow the cap to reflect changes in the overall need for universal service in the area. However, there would be no adjustment for the total number of lines or handsets in the area. The current rural growth factor (which has been negative in some recent years) would be eliminated.

3) Adopt the Framework

Before any auction takes place, the FCC should adopt a framework for the auction process.

a. Areas for Bidding

The FCC would first designate the geographic areas that would be used for bidding. Areas should be small enough to allow support to be targeted where it is most needed, but not so small as to create unnecessary complexity. They should incorporate information about where rural populations are clustered, so as to distinguish between high and low density areas.

Geographic units such as census block groups or counties are possibilities, but these areas often cut across geographic barriers, such as mountains and rivers, and ignore clustering of customers that would be relevant to any prospective provider of universal service. The arrangement of ILEC wire centers, however, contains useful information about the geography of each area and the location of customers, since ILEC switches have generally been located in population clusters (in the centers of small towns). CETCs, while they have different network topologies, have also tended to locate their facilities in population clusters for similar reasons; they have put their facilities where the customers are.

The use of ILEC wire center areas represents a reasonable balance among these considerations. If some other geographic unit of similar size is readily available, and meets the requirements discussed here, then the Commission may consider that unit in place of wire centers. Once a geographic unit has been selected, steps should be taken to ensure that all potential participants in an auction would have ready access to data delineating the boundaries of those areas. An auction design that allows for package bids (as discussed below) makes it possible to use areas that are smaller than a study area.

b. The "Reserve" or Maximum Bid

The Commission would also establish a maximum bid, or reserve, for each wire center. Reserve amounts are widely used in competitive bidding processes to limit the range of

possible outcomes. In this case, the reserve amount would be set at the level of the support provided immediately prior to the auction. In this design, two reserves would be enforced: the first at the study area level, and the second at the wire center level.

The aggregate reserve. For the wireless auction, the aggregate reserve for each study area would be the total amount of support provided to all wireless ETCs in the study area prior to the auction. For the wireline auction, the aggregate reserve for each study area would be the total amount of support provided to all wireline ETCs in the study area prior to the auction.

The wire center reserve. In order to allow competitive bidding to proceed at the wire center level, it would be necessary to develop a reserve amount for each wire center. This would be done by disaggregating the existing support at the study area level in the following way:

- First, the aggregate reserve in the study area would be divided by the total lines of all wireless (wireline) ETCs to derive an average per-line support amount.

- Second, the aggregate study area reserve would be disaggregated to each wire center on a pro-rata basis by multiplying the number of wireless (wireline) ETC lines in each wire center by the average per-line support amount.

- Finally, each wire center amount would be multiplied by a constant greater than one to arrive at the wire center reserve amount.

This approach allows a reserve to be developed for each wire center, but avoids the need for the Commission to develop detailed cost estimates by wire center.[3] Because each wire center reserve is greater than its pro-rata share of the current level of support in a study area, it also provides room for the bidding process to provide more support to higher cost wire centers, and less support to lower cost ones. However, this also means that the sum of the individual wire center reserves will be greater than the aggregate reserve at the study area level. The application of the aggregate reserve ensures that the bidding process cannot result in an increase in support for the study area as a whole.

c. Qualification Process

Qualified bidders that would be eligible to participate in the bidding process would be providers who have been designated as ETCs in the area. This is consistent with Section 214(e), which requires a carrier to be an ETC in order to be eligible for support.

---

[3] The Commission does not need to engage in detailed cost analysis in order to establish reserves. In fact, part of the reason to use competitive bidding is to reduce reliance on traditional measures of cost. However, auction results might be improved if some simple indicator could be developed, perhaps based on the size or density of the wire center, to differentiate between higher and lower cost wire centers. Support from the non-rural high cost fund is already disaggregated to the wire center level. There is also a process in place for ILECs to develop and submit proposals to disaggregate study areas for USF purposes, and where such plans have been approved, they could be used to calculate a reserve at the wire center level.

d. Obligation of the Auction Winner

In any competitive bidding process, the ETCs would be bidding for the obligation to serve as the provider of universal service in a high cost area, in return for which it would receive financial support equal to the amount of its bid.[4] The Commission, in cooperation with the states, would develop a statement that would define the winning bidder's obligations. This would, in effect, serve as a request for quote (or RFQ).

In return for the universal service support, the winning bidder would be required to offer service in the entire area, and to meet any other terms of the RFQ. If a wireless CETC bids for an area and loses, then that CETC would no longer have an obligation to serve that area.

e. Schedule and Organization of the Bidding

In this design, competitive bidding would not take place simultaneously in all areas. Instead, bidding would be introduced gradually through a series of transitional steps.

The Commission would establish a regular schedule of events leading up to an auction. This would include nomination of areas for bidding, registration of bidders, posting of deposits, and the bidding process itself (this series of events is referred to here as a "bidding cycle"). This flexible framework would allow the Commission to manage the transition to competitive bidding in reasonable steps, and, at the same time, provide ETCs themselves with the opportunity to decide when an area is ready for competitive bidding.

- A bidding cycle would be held twice each year. The first bidding cycle would begin six months after the adoption of an order establishing the plan.

- In any cycle, a wireless CETC would be able to nominate for bidding any area for which it is qualified, and where there is at least one other wireless CETC, except in areas where an auction had already been held and the term of the contract resulting from that auction had not yet expired. A wireline ETC would be able to nominate an area where there is at least one wireline CETC for a wireline auction, except in areas where an auction had already been held and the term of the contract resulting from that auction had not yet expired.

- At certain points in the transition process, the Commission would, on its own motion, nominate areas that meet certain criteria. For example, as discussed in Section 4, it would nominate areas with more than one wireless CETC to begin the wireless CETC auctions.

---

[4] Some of the universal service mechanisms, such as Lifeline, Link-up, schools and libraries, and rural health care, are not related to high cost subsidies, and would not be determined through the competitive bidding process outlined here.

- Dates would be established for the events in each cycle. For example, if a wireless CETC wished to nominate an area for bidding in the first half of a given year, it might be required to file its nomination by February 1 of that year.

- Once an area has been nominated, a second window would be established for ETCs to register to bid in areas that had been nominated, and to nominate additional areas. This would prevent an ETC from gaining a first-mover advantage by nominating an area, would ensure that all ETCs interested in a given area are able to participate, and ensure that all areas related to those initially nominated can be included in the bidding process.

- The Commission would set a firm date for bidding to begin. As described in Section 6 below, bidding would be dynamic, which is to say it would involve multiple rounds.

- By grouping all of the bidding processes for each six-month period together, this framework would simplify administration. And, by announcing a clear schedule of events in advance, the framework would also make it easier for ETCs to plan their participation in the bidding process.

4) Auctions for Wireless and Wireline CETCs

To initiate the use of auctions for universal service, the Commission could first prompt competitive bidding among wireless CETCs.

In each area where there is more than one wireless CETC, an auction would select one "winner" to be the wireless provider of universal service in that area. Any area that had not previously been nominated by a wireless CETC, and where more than one wireless CETC is already certified, could be nominated by the FCC on its own motion.[5] Wireless CETCs would bid for a flat amount of support in each area. The design of the bidding process is discussed in Section 6.

Once a wireless winner is selected, that provider would receive the support amount contained in its bid. The ILEC, and any other wireline ETC in the same area, would continue to receive support under the cap mechanism described in Section 1.

The FCC could publish results of all auctions on a web site, where that information would be available for use by any bidder in formulating its bid in subsequent auctions.

Once the wireless CETC auctions have been completed, the Commission should nominate for auction any area where at least one wireline CETC has been designated. In these auctions, both the ILEC and any wireline CETC would participate, and the auction would select a single wireline provider of universal service for the area.

---

[5] The Commission could decide either to prompt bidding on all such areas in one bidding cycle, or could decide that it would be more convenient to spread the auctions out over time.

5) FCC Reviews Auction Experience, Decides Next Steps

After a reasonable period, the FCC could then review its experience with the wireless and wireline universal service auctions.

The Commission would consider this experience, the development of markets in rural areas, changes in technology, and the acceptance of substitutes by customers of different services.

Based on this experience, the FCC would then determine whether it should nominate additional areas for auction.

- **A general auction.** The Commission could prompt a general auction in any area where there is a CETC. Both wireline and wireless ETCs would participate. The general auction would select a single ETC to be the universal service provider for the high cost area and to receive the support determined by its bid. The auction design described here is intended to be suitable for a general auction; the FCC could determine whether any adjustments would be appropriate, based on the experience gained with previous auctions. The reserve for this auction could be the sum of the wireline and wireless support amounts provided on the date of the general auction.

- **Representative bidding.** As part of its review, the Commission should also consider whether to use the results of auctions, where they have been held, to adjust the support of ETCs receiving support not yet established by an auction. Once it has assembled a representative sample of results from the areas where bidding has been completed, the FCC should either perform or commission an econometric study that would relate these results to the characteristics of the areas, such as size and density. This econometric model could then be used to estimate the likely results of an auction in an area with given characteristics.

  Estimates based on the wireless auctions, or on general auctions, could be used to adjust the support of a wireless ETC in an area where a wireless ETC auction had not yet been completed, (either because the area had not been nominated, or because an auction in the area had failed).

  Estimates based on the wireline auctions, or on general auctions, could be used to adjust the support of wireline ETCs whose support had not yet been set by an auction.

The support would be the lower of the capped support amount or the amount indicated by the econometric study.[6] If an ETC does not believe that the estimate produced by the econometric study should be applied to a given area, then it would have the option of nominating that area for bidding.

6) Design of the Competitive Bidding Process

The design outlined here is called a "clock-proxy" auction. The bidding process would be a hybrid of two designs that combines the advantages of each. The first phase is a clock auction. The second phase is a proxy auction. This design draws on the latest work of auction experts in this area (including the Commission's own). A similar design has recently been adopted by Ofcom for a major spectrum auction in the United Kingdom.

a. The Clock-Proxy Hybrid

The last few years have seen significant advances in auction design theory.[7] One of these advances has been the development of a hybrid of two types of auction designs, a "clock" auction and a "proxy" auction. This hybrid is called a "clock-proxy" auction.

The first phase of this design would be a "clock auction." A clock auction is a dynamic, multiple round process in which the auctioneer announces prices and bidders respond with quantities desired at the announced prices. It is called a clock auction because the rounds of bidding are conducted at regular intervals. This design allows the auction itself to generate information useful to the bidders. By observing the results of the early rounds, each bidder gains knowledge of the value of each area and how the areas are related to one another. In this respect, the clock phase of this design is similar to the spectrum auctions. Importantly, a clock auction also limits the opportunities for bidders to engage in strategic behavior compared with a more conventional multiple-round auction in which the bidders themselves formulate the bids. In each round, a bidder can only answer a yes-or-no question for each area or package of areas: will the bidder be willing to become the universal service provider at the support amount called out by the auctioneer? This kind of design thus makes it difficult, for example, for a bidder to use the amount of its bid to signal other bidders.

---

6 As Verizon and Verizon Wireless noted in their comments, this approach has been used to extend auction results in other settings, such as the pricing of timber cutting rights in Canada. Comments of Verizon and Verizon Wireless at 27-28, WC Docket No. 05-337 (filed October 10, 2006).

7 For an overview of modern auction theory, *see* Paul Milgrom (2004), *Putting Auction Theory to Work*, Cambridge: Cambridge University Press. For essays on various aspects of combinatorial auctions, *see* Peter Cramton, Yoav Shoham, and Richard Steinberg (2006), *Combinatorial Auctions*, Cambridge, MA: MIT Press. A discussion of the clock-proxy design is provided in Lawrence M. Ausubel, Peter Cramton, and Paul Milgrom, "The Clock-Proxy Auction: A Practical Combinatorial Auction Design," which appears as Chapter 5 in Cramton, Shoham, and Steinberg.

The second phase of this design would be a "proxy" auction, which is based on the results of the clock phase. The proxy phase is necessary to make the results from the clock phase more efficient. It provides the opportunity for bidders to create combinations of prices that would not have occurred in the clock phase. This is called the proxy stage because the bidding activity is conducted by a proxy agent (a computer program) following strict rules in order to limit the possibility of strategic behavior by the bidder itself.

b. Advantages of the "Clock-Proxy" Hybrid Design

Flexible bidding for individual areas, or packages of areas. This design allows the bidders to place bids on different areas in a very flexible way. A bidder could submit bids on a specific area or areas. The same bidder could also submit a "package bid" on a group of areas, if the bidder found them to be related to one another (for example, if the bidder could serve the "package" more efficiently than the individual areas separately). This type of bidding process is called a "combinatorial" auction.

A design which permits the flexibility of package bidding makes the choice of the area to be auctioned less critical. It would allow the Commission to design the auction around smaller geographic units (such as the wire center areas discussed here) without unduly complicating the bidding process. Rather than having the Commission make decisions about how areas should be grouped together, this approach allows the Commission to elicit information from the bidders about how the areas should be grouped. This design would achieve more accurate targeting of universal service support, and address cherry-picking concerns. These advantages would be gained without inflating the fund, and without giving up the economies of serving larger areas in cases where those are important.

Allowing for different relationships among areas. The auction design outlined here is designed to perform well – in terms of efficiency, and minimizing the need for support – regardless of whether different bidders view a given set of areas as independent, substitutes, or complements. This is important because in bidding for universal service support, all three of these are possible:

- Areas are **independent** if a bidder's willingness to bid for hypothetical "area A" is not affected by the outcome of the bidding for any other area. For example, a small ILEC that serves a single wire center may care only about that area.

- Two areas are **substitutes** if a bidder wishes to win either area A or area B, but not both. This could be the case for a wireless carrier that wants to enter one new market, and is considering A and B as possible alternatives. If in the early rounds of bidding this carrier encounters strong competition for A, it may shift its attention to B in later rounds. This kind of behavior has occurred in the spectrum auctions.

- Two areas are **complements** if a bidder sees some synergies in serving the two areas together, so that it would be willing to accept less support in area A if it also wins area B. For example, a mid-size ILEC that serves several wire centers in a state may view them as complements. In this case, strong competition for A may make this carrier less willing to bid for B.

Some earlier proposals for competitive bidding of universal service have essentially treated high cost areas as independent.[8] For that reason, they do not make any provision for either substitutes or complements. The multiple-round design used in the spectrum auctions performs well when areas are substitutes, but not as well when they are complements. As explained in more detail below, the clock-proxy auction design will perform well regardless of whether different bidders view a given set of areas as independent, substitutes, or complements.

Minimizing strategic behavior. The design outlined here also minimizes the possibility of strategic behavior, such as collusion among the bidders, or an attempt by one bidder to conceal its interest in particular areas by holding back until the late rounds of an auction. This is particularly important in the context of bidding for universal service, where the number of bidders for any given area is likely to be small. Because this design encourages each party to bid straightforwardly based on relevant business factors, such as its expected costs and revenues, it would improve the transparency of the process, and the efficiency of the outcome.

Single Winner-Flat Amount of Subsidy. This design allows for a single winner. Thus, there would be no need to attempt the difficult task of apportioning support amounts among different providers. This would avoid many contentious issues that have arisen in the past, such as whether to support primary lines, additional lines, multiple handsets, and so on. It would also make for a simpler bidding process. Each bidder would bid a flat dollar amount of subsidy – the total amount the ETC would accept in order to take on the universal service obligation for a given high cost area. Each bidder would base its bid on its own business plan, which would include the bidder's own assessment of many factors – including the demand quantities (of lines, handsets, etc.) it would expect to serve within each area.

---

8 For example, neither Milgrom (Paul Milgrom, "Procuring Universal Service: Putting Auction Theory to Work," Lecture at the Royal Swedish Academy of Sciences, December 9 1996) nor Weller (Dennis Weller, "Auctions for Universal Service Obligations," Telecommunications Policy, Vol 23, 1999, pp. 645-674) allowed for package bidding; instead they proposed a separate auction for each area. Since these designs were also single-round, sealed-bid auctions, they did not allow bidders to shift their attention from one area to another based on results in earlier rounds. The only provision for complementarity was a limited opportunity for a bidder to withdraw if it wins area A but loses some other area it sees as related. Because the design proposed here deals directly with package bidding, and also allows for multiple rounds, there is no need for such a withdrawal provision.

c. Clock Phase

As discussed above, in the first phase of the auction (the "clock" phase), the bidding would proceed in a series of discrete rounds. Instead of having the bidders submit support amounts, the auctioneer "calls out" a support amount for each area in each round. Each bidder then indicates which areas it would be willing to serve as the universal service provider at the specified support amount. The clock phase would proceed as follows:

- The support amount called out by the auctioneer in each round is a flat amount per year. It is constant each year for the duration of the contract. In the first round of the clock phase, the auctioneer calls out the reserve price in each wire center.

- In each round of the clock phase, each bidder may submit a bid on a package that includes any area or combination of areas it chooses. Since the support amounts are being announced by the auctioneer, the package bid is simply a list of the areas the bidder would be willing to serve for the amounts called out in that round. Each bid is also exclusive in the sense that at the end of the clock phase the auctioneer can accept only one bid for each area, and one bid from each bidder. All bids remain in effect for the entire duration of the auction and cannot be withdrawn (even after bidding has closed). At the end of the bidding process, the auctioneer may go back and accept any bid from a previous round. This means that a bidder must carefully consider what it bids in every round, because every bid is a binding offer that the bidder might be called upon to honor.

- At the end of each round, the auctioneer determines how many bids have been submitted for each area. The objective of the auctioneer is to select a single bidder for each area. Therefore, in an area where more than one bid has been received, there is excess supply. In areas where no bids have been received there is excess demand. In areas where there is excess supply (more than one bidder) the auctioneer reduces the support amount called out in the next round by a set amount.[9]

- The auction is held over the Internet, using a software program to administer the bidding.[10] The program includes admission control to ensure that only qualified

---

9 The decrement by which the bid is reduced each round is an element of the auction design. A large, or coarse, bid decrement will make the auction go faster, but may jump over the correct support amount. To address this issue, a device called "intra-round bidding" may be used to obtain finer information from the bidders. Rather than simply drop out of the bidding for an area when the support amount falls below the level it would accept, a bidder could indicate willingness to accept a level of support between the amounts called out in the last two rounds.

10 Having bids submitted electronically over the Internet, and using specialized software to administer the bidding process, has been used successfully in the FCC's spectrum auctions, as well as many other successful auctions around the world.

entities submit bids. The program also checks to see that bids meet the rules, and prompts the bidder to resubmit a bid if it does not. The rounds occur at some set interval, perhaps every two hours.

- The program will accept only bids that meet the wire center reserve. It also checks after each round to see that the aggregate reserve is met at the study area level, and provides that information to the bidders prior to the next round.

- This aggregate reserve check can only be done after a round is completed, so within a round each bidder does not know if the bids being submitted, taken together, will satisfy the rules. In some cases, not all wire centers in a study area will have been nominated for bidding. In this event, in order to apply the aggregate study area reserve, the auctioneer would include the areas that were not part of the auction in the calculation as if they had received bids at their wire center reserve amounts.

- Each bidder would be subject to an "activity rule," which would require it to bid actively in every round in order to maintain eligibility to bid in subsequent rounds. This rule, which has been used in the spectrum auctions, prevents a bidder from "lying low" in early rounds to conceal its intentions, or to allow rivals to eliminate one another.[11] In areas where there are few bidders, the auctioneer may limit the information provided to each bidder. For example, each bidder may know the number of other bidders, but not the identity of each.

- The clock auction rounds continue until there is no more than one bidder for each area.

- At the end of the clock phase, there may be some areas for which there is no bid. There may also be areas where bids have been submitted, but these do not satisfy the aggregate reserve constraint because, as discussed above, the sum of the wire center reserves will be greater than the aggregate reserve constraint for the study area.

- At the end of the clock phase, the auctioneer runs an optimization program that selects the winning bidder in each area, based on all the bids submitted (this may include bids from earlier rounds, since all bids remain in effect until the auction closes). The optimization seeks to select winners for as many areas as possible, while minimizing the cost to the fund.

---

[11] Specifically, the rule employed here is called a "revealed preference activity rule," which ensures that, as the support amount declines during the rounds of bidding, a bidder cannot shift its bid towards a package whose support amount has fallen more than the support amount from a previously preferred package. *See* Ausubel, Cramton, and Milgrom, op. cit., at page 120.

d. Proxy Phase

Once the clock phase of the auction has been completed, a final round or "proxy phase" is held to "fine-tune" the results.

The proxy phase is used to make the results of the clock phase more efficient. The proxy format opens up additional bidding opportunities by allowing each bidder to specify package prices that might not have been announced by the auctioneer in the clock phase. At the same time, the proxy phase limits each bidder's ability to behave strategically by having a proxy agent bid on behalf of the actual bidder according to strict rules.

In the proxy phase, each bidder reports a valuation for each package of areas in which it is interested. This valuation is the "best and final" support amount that bidder would accept. Unlike the clock phase, where each bidder specifies a single package in each round, here a bidder may submit valuations for any number of packages, and the packages may overlap in the sense that a given wire center may be included in more than one package.

The actual bidding is then done on the bidder's behalf by a proxy, which is simply a computer program that bids according to preset rules, given the valuations submitted. Starting with the support amounts produced by the clock phase, each proxy looks for opportunities to make its bidder better off by submitting a bid on the bidder's best package; that is, the package that maximizes the difference between the current bid and the bidder's valuation. Bidding continues until no proxy can find any such opportunity.

- The same reserve rules discussed in Section 3.b are maintained in the proxy round. The activity rule is also maintained in the proxy phase, but may be relaxed by a measured amount to allow bidders to increase the number of areas on which they bid.

- In practice, the proxy round is implemented using an optimization program. A winner is chosen for each area by a criterion that minimizes the total amount bid over all areas. The amount of support determined by the optimization is also competitive in the sense that no coalition of bidders can offer the auctioneer a lower-cost plan.

- In the final optimization, there may still be some wire centers for which there is no bid. There may also be study areas for which bids were submitted, but where the auction fails because the bids did not meet the aggregate reserve constraint for the study area. In these areas, the situation would revert to the status quo prior to the auction, and the ETC(s) that participated in the auction would continue to receive support capped by the mechanism described in Section 1.

- The proxy phase builds upon the advantages of the clock phase. The information generated in the clock phase helps bidders formulate the valuations they are asked to submit in the proxy phase.

- If the areas are substitutes, the clock auction may also do most of the work of identifying the best bids, leaving relatively little need for "fine tuning" in the proxy phase.

- However, where areas are complements, it is likely that bidders may hold back from making some bids, and the clock phase may end before all of the possible bids have been revealed. Suppose a bidder is interested in a package of areas A, B, and C which it views as complements. Given the particular support amounts called out by the auctioneer, and especially if another party bids aggressively for B, this bidder may choose not to bid for any of the three areas, even though its combined bid might have been superior. By giving the bidder an opportunity to specify a different combination of support amounts, the proxy phase may elicit a bid for the package that would be better, from the auctioneer's perspective, than any combination of bids offered in the clock phase.

7) Transition: Implementation of Auction Results

After the auction results have been announced, a transition period is necessary if a "winner" will be taking on new universal service obligations. For example, if the winner is a wireless CETC not already serving the area, then a transition period may be needed. At some pre-announced point in the transition, the administrator could require the winner to post bonds to ensure performance of the contract. Later in the transition, the winner may be required to file an implementation plan to show how it would plan to fulfill its responsibility. This would create an incentive for the winner to formulate plans in a timely way, and would provide the administrator with an early warning of any potential problems. A transition period would also allow ETCs that had participated in an auction, and had not won, to adjust their business plans.

Transition in the Event of a General Auction. Under this proposal, no general auction would be held unless the Commission took action pursuant to its review in Step 4. If a general auction is held, and the ILEC is the winner, then no transition would be needed, since the obligation it would take on would simply be an extension of what it is already doing. If an ILEC bids for an area and loses, the state commission would decide whether and how to reduce regulation of that carrier and what (if any) obligation to serve would be appropriate. The Commission and/or state commissions, on the other hand, could decide to exercise their authority to remove obligations that the losing ILEC bidder may have to provide unbundled elements or resale.

Although the winner would have the responsibility to provide service, it could fulfill that responsibility by contracting with other parties, including the incumbent. The losing ILEC could choose to continue to operate, selling retail services to end-users. The state commission may reduce retail regulation of such ILEC services. The ILEC could also sell wholesale inputs to the new universal service provider. If the FCC and/or the state commission removed UNE and resale obligations from the ILEC, then these wholesale transactions could be at commercial terms.

8) Terms of the Contract

The contract between the winner and the regulators (FCC and state) would incorporate the terms of the RFQ and the level of annual support to the winner. Like any procurement contract, it would include provisions to ensure that the terms of the contract are met. These could include fines, forfeiture of bond amounts, and being barred from participation in any subsequent auctions.

The contract would be awarded for a set term. The area could not be nominated during that contract period. At the end of the term, the contract would continue until a party – either an ETC or the Commission – nominated it again, at which time another auction would be held.

9) Areas Not Yet Auctioned

In some areas, support may not have been set through competitive bidding (either because the area was not nominated for bid or because the auction failed to produce a result). These areas would continue under the capped support arrangement described in Section 1. In an area that receives no support today, the reserve would be zero, and thus that area would not be eligible for auction.