

ACE/Rural Utilities Service Symposium

FCC National Broadband Plan (NBP) and Rural Universal Service Reform

John Huslig

Financial Analyst

Rural Utilities Service

Telecommunications Program

Advanced Services Division

(202) 720-0665/john.huslig@wdc.usda.gov

May 04, 2010

On April 21, 2010 the FCC issued a Notice of Inquiry on various aspects of the NBP and a Notice of Proposed Rulemaking for Reform of the Legacy (existing) High-Cost USF.

Notices characterize existing rural USF as inefficient for broadband deployment since it is a voice telephony cost model

However, RUS with STMP has been financing only broadband capable plant since the mid 1990s

Section 254 Universal Service Principles (only provide regulatory guidance)

ACCESS IN RURAL AND HIGH COST AREAS.— Consumers in all regions of the Nation, including low-income consumers and those in rural, insular and high-cost areas, should have access to telecommunications and information services, including interexchange services and advanced services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

COMPETITIVE NEUTRALITY – Universal service support mechanisms and rules should be competitively neutral. In this context, competitive neutrality means that universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another.

Interestingly, the FCC seeks comment on whether this principle should be retained - NBP is essentially a fiber build to the 2nd mile node, with 12kft DSL or 4G for the last mile

National Broadband Plan Features

Establish Connect America Fund (CAF)

- CAF to be set at the current total High Cost USF
- Current High Cost USF \$4.6 Billion/yr (about \$2.6B for RLECs, \$1.4B for CETCs and \$.6B for Price-caps)
- CAF to initially fund buildout for the 7 million rural unserved
- CAF to fund buildout of 4.0/1.0 mbps capability
- All current High Cost USF to migrate to CAF within 10 years
- CAF for Wireless (Mobility) and Broadband proposed
- Existing wireless CETC and non-rural USF savings to be used to fund initial CAF outlays

NBP/CAF

- County-wide service areas used in NBP
- Reverse Auctions are endorsed for CAF
- Only high cost plant will be funded with CAF
- Incentive regulation and competition envisioned for low cost non-CAF areas
- Brownfield build – CAF includes only the cost to bring the “big pipe” to the 2nd mile node and the costs for the remote terminals and DSLAMs for DSL and the cell site costs for 4G
- NBP calculates 700mhz 4G cell site radii at 8 miles in flat country, 5 mile in rolling country and 3miles in hilly and mountainous country

NBP/CAF

- **Is the NBP and the CAF a tasty morsel for rural America?**
- Rural customers will be close enough to hear the “big pipe” party, but the party ends at the 2nd mile node – the 2nd mile node is the choke point for rural broadband
- NBP calculates that 4G will be the lowest cost last mile technology for 90% of the rural unserved homes and 12kft DSL may be the lowest cost technology for only 6.5% of the rural unserved

NBP/CAF

- Satellite may only have enough capacity to serve about 250,000 homes or 3.5% of the rural unserved, but these 3.5% represent 60% of the NBP/CAF total cost
- Remember the lowest cost technology is proposed as a possible determinant of the efficient amount of support required under the legacy high cost USF reform

FCC's 4/21/10 Appendix C (Exhibit 3-M)

Broadband Speed (downstream)	Number of unserved HUs (millions)	Technology	Total cost (\$ billions)	Investment gap supported by per technology (\$ billions)	RUS Calculated Investment (per line) Subscriber Revenue
1.5 Mbps	6.3	15,000-foot DSL	21.9	15.3	\$1,048
4 Mbps (base-case)	7	12,000-foot DSL	26.2	18.6	\$1,086
4G wireless			18.3	12.9	\$771
6 Mbps	7.1	5,000-foot DSL	62.8	43.4	\$2,732
		3,000-foot DSL	76.9	57.3	\$2,761
50 Mbps	13.7	HFC/RFoG	124.9	85	\$2,912
100 Mbps	130	FTTP	669.6	321.8	\$2,675

NBP/CAF

How will CAF be implemented?

- USF Grants (incentives) proposed for construction costs in Unserved wireless and broadband areas – some operating subsidy to be available as an upfront subsidy, but only as necessary
- Cost models and reverse auctions may be used to determine the reserve price (maximum USF allowed) or the minimum USF necessary

Proposals for Reform of Rural Universal Service Support

- “The intent of the NBP and NPRM is to eliminate the indirect funding of broadband-capable networks today through our legacy high-cost programs” - Legacy high-cost programs must be curtailed in the near term
- Reverse auctions may be used to determine who will receive wireline USF and the amount that would be necessary
- It is proposed to cap all wireline USF programs at current levels until reforms are adopted (cap should not be at company level or RUS financed rural plant upgrades will essentially become uneconomic)

Proposals for Reform of Rural Universal Service Support

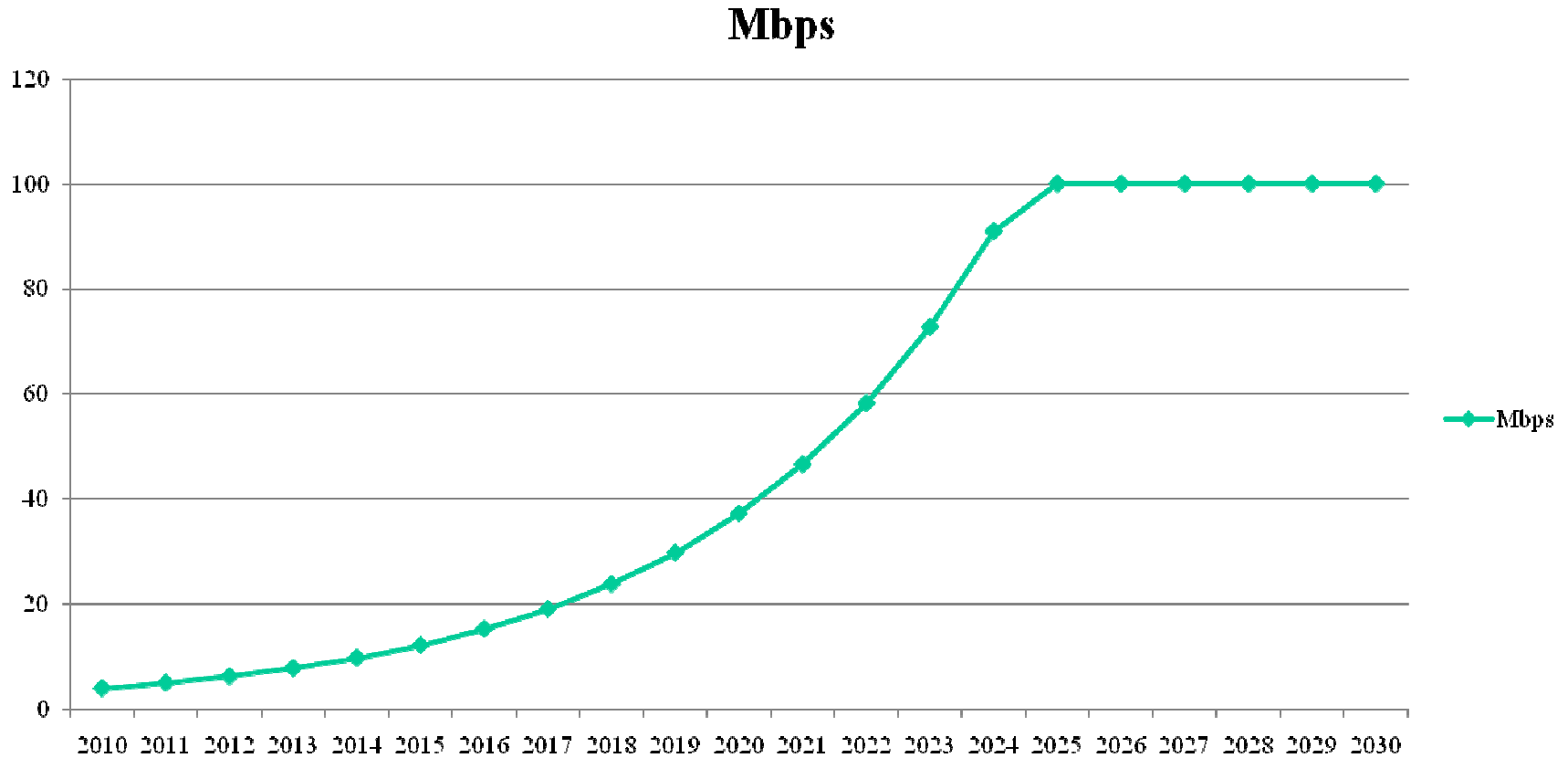
- Comment is sought on whether the revenue requirement for total plant costs should be considered when determining appropriate future CAF as a replacement for current high cost USF – or is it appropriate to use the NBP brownfield approach to recover only the incremental costs required to provide broadband
- Comment is sought on “other proposals” to support high-cost broadband and ensure that the overall size of the high-cost fund stays at or below current levels

Proposals for Reform of Rural Universal Service Support

- Things to consider – Is it excessive to have a 1% surcharge on current telecommunications revenues of approximately \$400B/year (does not include video) to support the 10% of households that may be high-cost and of which up to 50% may be currently unserved at the proposed 4mbps level?
- Should the revenue surcharge be increased to 2% or 3%, or perhaps supplemented by an excise tax of 1% on all new investments in computer, internet and telecommunications network equipment

RLEC Scenario #1

Normal Build (maintain RLEC Broadband buildout pace)



RLEC Scenario #2

Delayed Build (RLEC Broadband build falls behind to nonrural build pace)

Mbps

