The National Broadband Plan

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Federal Communications Commission

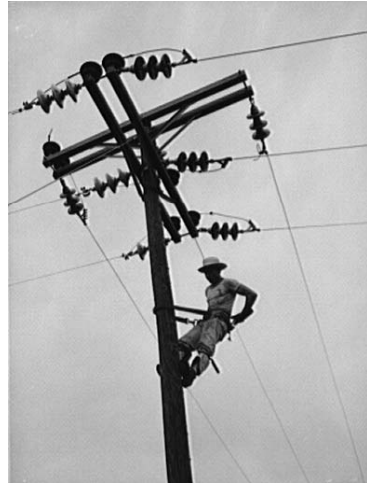**Presentation before Washington Utilities and Transportation Commission**

May 5, 2010

Why a National Broadband Plan?

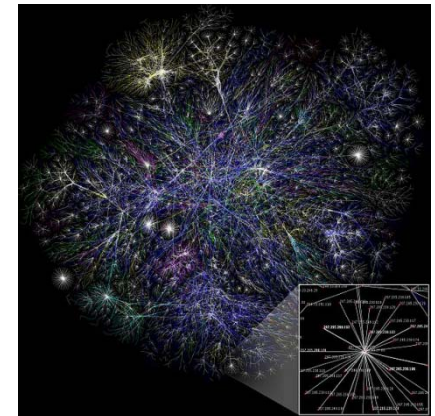**Because broadband is the great infrastructure challenge of the early 21st century**

Transcontinental railroad (1860s)

Rural electrification (1930s)

Interstate highways (1950s)

Broadband

Congress's charge in the Recovery Act led to the creation of the National Broadband Plan

Congress said that the plan should:

- "Ensure that all people of the United States have access to broadband capability and establish benchmarks for meeting that goal."

- "[I]nclude . . . a detailed strategy for achieving affordability . . . and maximum utilization of broadband infrastructure and service"

- "[I]nclude . . . an evaluation of the status of deployment of broadband service"

- "[I]nclude . . . a plan for use of broadband . . . in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes."

CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN

Goals of the National Broadband Plan

- **Goal No. 1:** At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second.

- **Goal No. 2:** The United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.

- **Goal No. 3:** Every American should have affordable access to robust broadband service and the means and skills to subscribe if they so choose.

- **Goal No. 4:** Every American community should have affordable access to service of at least 1 gigabit per second to anchor institutions such as schools, hospitals and government buildings.

- **Goal No. 5:** To ensure the safety of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.

- **Goal No. 6:** To ensure that America leads in the clean energy economy, every American should be able to use broadband to track and manage their real-time energy consumption by 2020.

The Plan's approach to sizing the gap

Establish National Broadband Target

"Everyone . . . should have access to broadband services supporting a basic set of applications"

Key Principles

- Commonly subscribed to by broadband consumers today
- Support both current and projected future applications and services
- Support economic and social development

Estimate Availability

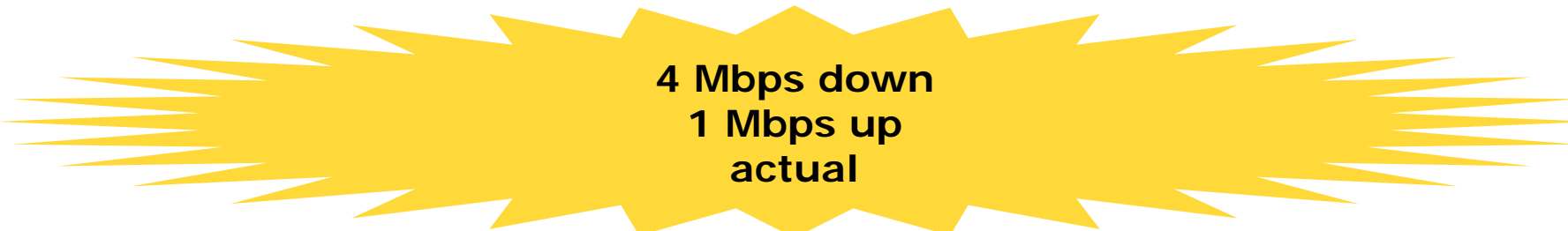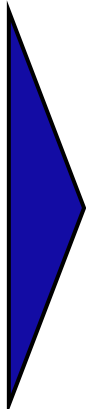*Number of unserved and their proximity to current broadband infrastructure*

Current state

- Cable, telco, and wireless availability calculated independently
- Used best available data from commercial and government sources
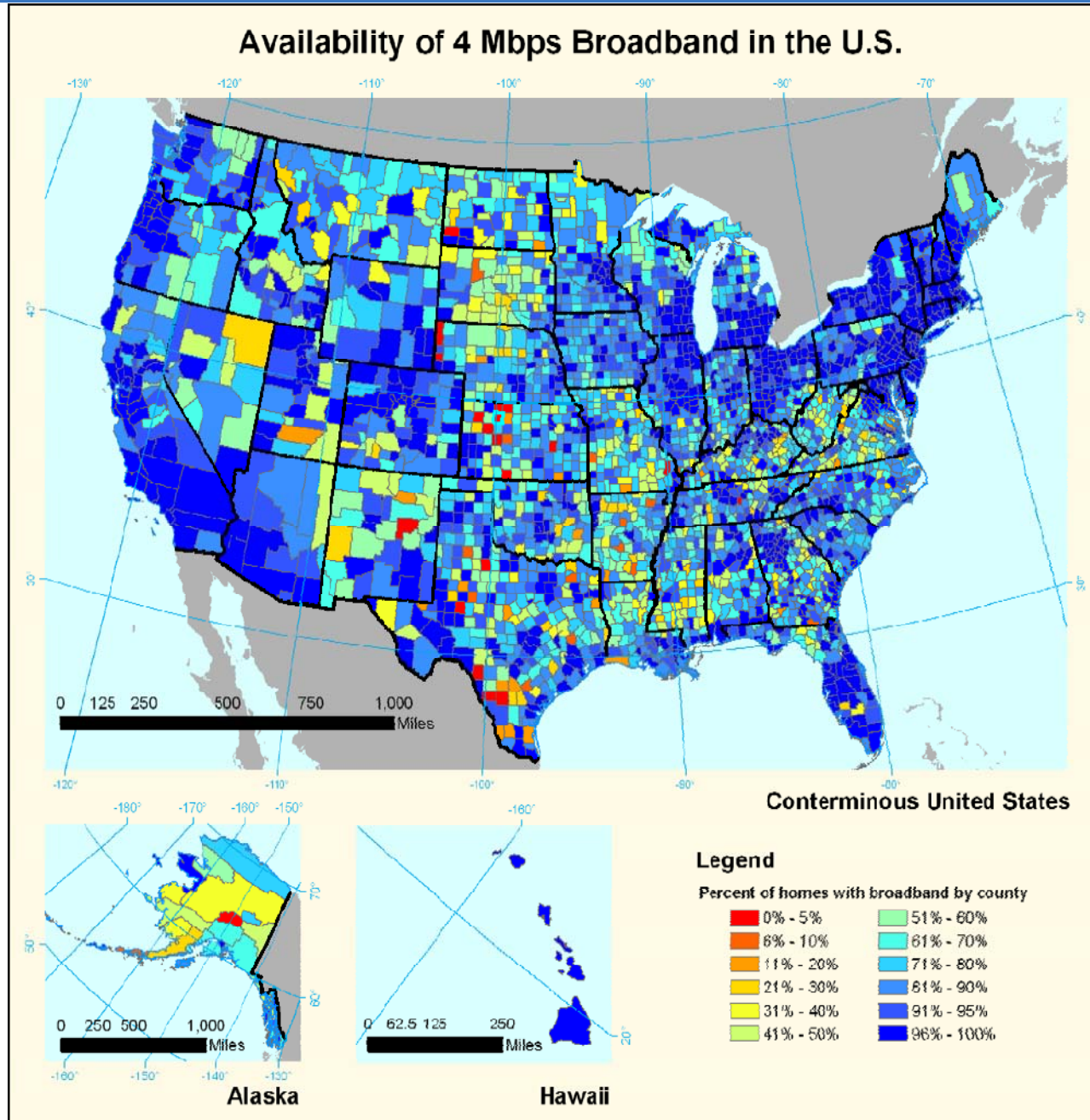- Filled data gaps with a statistical model

Future state

- Based on public announcements

**4 Mbps down
1 Mbps up
actual**

National Broadband Plan estimate of availability

Availability of 4 Mbps Broadband in the U.S.

4 Mbps Broadband infrastructure potentially available to approximately 95% of Americans, but an "availability gap" exists in nearly every county in the United States

The Plan's approach to sizing the investment gap

Calculate Investment Gap

Funding required to induce operators to deploy ubiquitous broadband

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Key principles
- NPV analysis
- Incremental economics
- Sufficiently granular
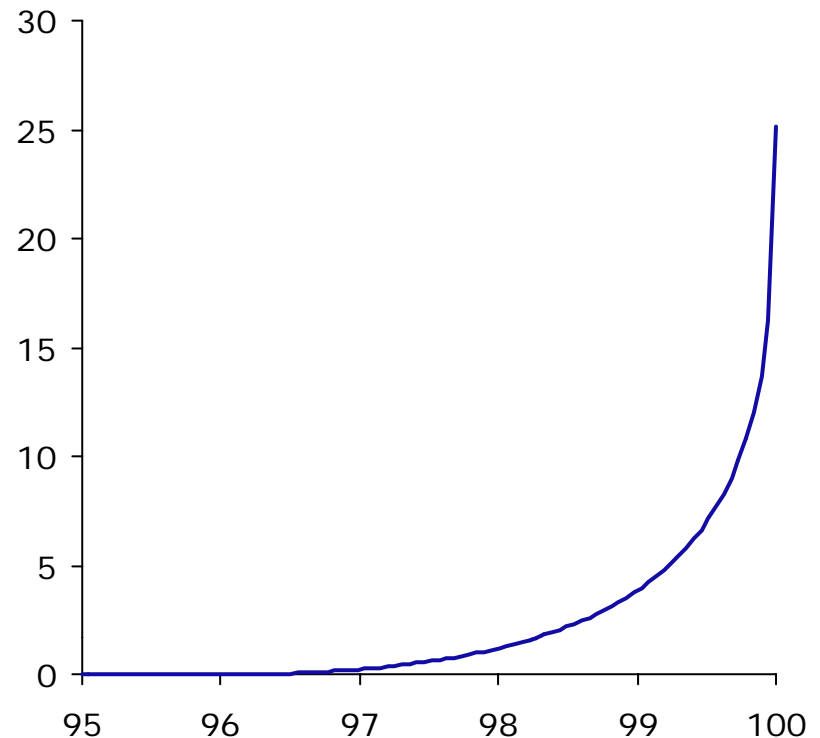- Economies of scale
- Technologically conservative

Key decisions
- Fund only one network
- Market-based disbursement
- Terrestrial coverage for all
- Proven use cases
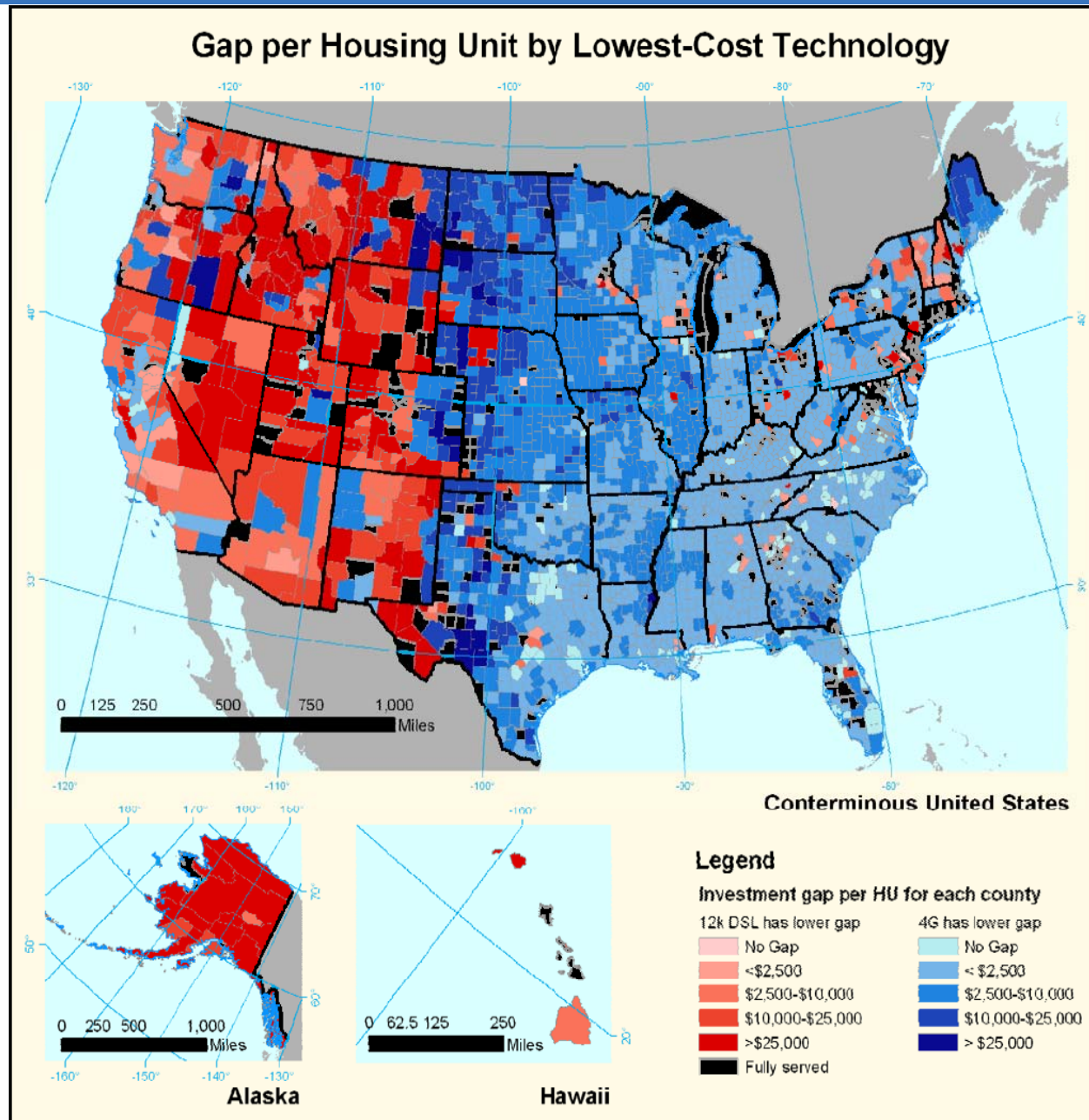
$23.5 billion availability gap

Investment gap

Percent of U.S. housing units served

National Broadband Plan estimate of investment gap

Gap per Housing Unit by Lowest-Cost Technology

Conterminous United States

Alaska

Hawaii

Legend

Investment gap per HU for each county

12k DSL has lower gap		4G has lower gap	
No Gap		No Gap	
<$2,500		< $2,500	
$2,500-$10,000		$2,500-$10,000	
$10,000-$25,000		$10,000-$25,000	
>$25,000		> $25,000	
Fully served			

Roadmap for USF/ICC reform

	Stage One (2010-2011)	Stage Two (2012-2016)	Stage Three (2017-2020)
Universal service	Create Connect America Fund and Mobility Fund Adopt measures to cap and reduce legacy high cost funding Adopt new contribution methodology	Begin disbursements from new Connect America Fund and Mobility Fund Implement targeted reductions in legacy high cost funding Implement reformed contribution methodology	Provide all ongoing support through the Connect America Fund Eliminate legacy High-Cost programs
Intercarrier compensation	Adopt framework for long-term intercarrier compensation reform, while implementing interim measures to curb arbitrage	Begin reductions in ICC rates	Phase out per-minute rates

First steps: the USF NOI/NPRM released in April

Use of a Model

- FCC's non-rural cost model vs. adapting the National Broadband Plan model for USF purposes
- Forward-looking vs. embedded costs
- Technologies included
- Total cost vs. incremental cost
- Cost model vs. economic model that considers both costs and revenues
- Geographic areas

Market-Based Mechanism

- Expedited process to target funding to unserved areas
- Competitive procurement auction

Capping and Limiting Growth in Legacy High Cost

- Cap legacy high cost support for incumbents at 2010 levels
- Shift rate of return carriers to some form of incentive regulation
- Eliminate Interstate Access Support for price cap companies
- Implement Verizon Wireless and Sprint merger commitments
- Phase down remaining CETC support over five years

Agenda for 2010

Already Launched

- **Universal Service NOI and NPRM** released April 21
- **State Commission Broadband Data Collection:** Order issued April 26, 2010
- **Lifeline Referral to USF Joint Board** released May 4
- **"The Availability Gap" Technical Paper:** Public forum and workshop scheduled for May 6, 2010, at 3 pm EDT webcast)

2Q 2010

- Implementation of USF Merger Commitments of Sprint and Verizon Wireless
- E-rate FY 2011 NPRM

3Q 2010

- Mobility Fund NPRM
- E-Rate FY2011 Order
- Rural Health Care Reform NPRM
- Lifeline Flexibility NPRM

4Q 2010

- USF Transformation NPRM
- Intercarrier Compensation NRPM
- USF Contributions NPRM
- Broadband Data NPRM