UTAH UNIVERSAL SERVICE FUND TECHNICAL WORKSHOP

April 5, 2024

Utah Rural Telecom Association (URTA)

PURPOSE OF TECHNICAL CONFERENCE

- Ensure a process that allows the Commission to determine that a provider's costs are reasonable and eligible for reimbursement from the Utah Public Telecommunications Service Support Fund (UUSF)
- Address the five questions identified by Commissioner Harvey

FIVE QUESTIONS

- Federal Grants
- Incremental service level
- Network design parameters
- Construction alternatives
- Wholesale rate

ELIGIBILITY FOR UUSF SUPPORT

Under Utah Code 54-8b-15:

- Must be a carrier of last resort
- Must provide:
  - Access lines
  - Connections; or
  - Wholesale broadband internet service

CARRIER OF LAST RESORT (COLR) AND ELIGIBLE TELECOMMUNICATIONS CARRIER (ETC)

- All URTA members are carriers of last resort on the State side and eligible telecommunications carriers on the Federal side
- State obligation to provide service to any customer or class of customer who reasonably requests service
  - Line extension tariff
- Federal obligation to provide voice and broadband services to defined number of customer locations

SERVICE OF HIGH-COST AREAS

High-cost areas in the state

Cost of providing service exceeds revenues from customers served

UTAH PUBLIC TELECOMMUNICATION SERVICE SUPPORT (UUSF)

- Under Utah Code Section 54-8b-15, UUSF support is available to eligible COLRs if their reasonable costs to provide service, **as determined by the Commission**, exceed the provider's revenues from:
  - basic residential services
  - public telecommunications services
  - rates approved for wholesale broadband internet access service, and
  - federal USF

ANNUAL REPORT FROM URTA PERSPECTIVE

ANNUAL REPORT

- COLRs costs are reviewed annually by the Division of Public Utilities for reasonableness – Annual Report
- Under R746-8-401(5), each year by February 14, the Division of Public Utilities prepares and provides a form of Annual Report
- On or before April 15, the COLR's file their Annual Report with the Division of Public Utilities

ANNUAL REPORT
(CONTINUED)

- The Annual Report requires:
  - Company information
  - Officers/directors/shareholders
  - Changes during the year
  - Total Company and Utah Specific Part 32 Account Information
  - Total Company and Utah Specific Assets and Contributions in Aid of Construction – Plant in Service

ANNUAL REPORT
(CONTINUED)

- Total Company and Utah Specific Depreciation and Amortization
- Total Company and Utah Specific Balance Sheet of the Company
- Total Company and Utah Specific Income Statement
- Asset Additions including job number
- Debt and Investment

ANNUAL REPORT EXCHANGE DETAILS

- service type (residential/business and voice, broadband, or bundle)
- wholesale/retail
- lifeline reduction passed to customer
- total connections
- total monthly connections
- base charge per line/residential rate ceiling
- ARC/FCC Max ARC
- Multi-Line Business EUCL/ARC
- Imputed base revenue (if any)
- Imputed ARC charge (if any)

ANNUAL REPORT
(CONTINUED)

- Deferred Tax Report (ARAM)
- Affordable Connectivity Plan
- Net Operating Loss and Tax Credits
- Revenue Requirement
- Rate Base Calculations (on Utah operations)
- Working Capital – Cash

IN DEPTH/FIELD AUDIT

- Every third year the Division conducts a more in-depth audit
  - Additional formal data requests
  - Site visit
  - Review of specific plant in service
  - More in depth review of company records

ANNUAL REVIEW OF ANNUAL REPORT BY DPU

- Upon receipt of the Annual Report the Division sends out Data Requests to each company asking for:
  - Audited Financial Statements
  - Recent audits (internal, 3rd party, FCC, NECA, IRS)
  - Detailed description of "Changes During the Year" Tab on Annual Report
  - Changes in corporate structure, management, and policy
  - List of Costs Excluded by FCC
  - Cost Study/Cost Allocation Manual
  - General Ledger and Trial Balance and Chart of Accounts
  - Tax Returns
  - Questions re NECA tariff and affiliate broadband pricing

ADDITIONAL DATA REQUESTS

- Detailed questions regarding work orders completed
- Federal USF received and/or changes to amounts
- Investments
- Rate Base Adjustments
- Accumulated Amortization

Typically, a URTA member can expect 15-45 formal data requests plus numerous informal discussions and follow ups with the Division during the review.

DPU RECOMMENDATION

- Division makes a preliminary recommendation to the Commission for UUSF Support for each Company by September 1
  - After reviewing the preliminary recommendation, the Division and the Company may engage in additional formal and informal discovery
- The Division will make a final recommendation to the Commission by November 1

FORMAL RECOMMENDATION

- Under R746-8-401, a party may challenge the Division's recommendation by notifying the Commission by November 15
- If the Division's recommendations are not challenged, **and** the Commission finds the COLR's costs and UUSF disbursements to be reasonable, the new UUSF disbursements will begin January 1
- If challenged or not approved, a scheduling conference is convened for resolving the contested issues

REASONABLE COSTS

- **ARE THE COSTS REASONABLE?**

DEPLOYING NETWORKS AND ENSURING REASONABLE COSTS

- Each URTA member evaluates a number of factors before network deployment, which may include examining:
  - Locations to be passed
  - Take rates/revenue forecasts
  - Current location of closest existing facilities
  - Age, useful life and condition of existing facilities
  - Maintenance costs
  - Build costs
  - Other Benefits or public policy considerations

CAREFUL PLANNING IS CUSTOMARY FOR URTA MEMBERS

- Utah Code 54-8b-15 requires that a COLR's costs be reasonable
- Management's expertise in network design and deployment
- Ultimately the deployment of the network and the cost of the network must be reasonable when considering all factors

COMMISSION GUIDED BY UTAH CODE 54-4-4

- If, in the commission's determination of just, reasonable, or sufficient rates, the commission considers the prudence of an act taken by a public utility or an expense incurred by a public utility, the commission shall apply the following standards in making a prudence determination:
  - ensure just and reasonable rates for the retail rate-payers of the public utility in this state;
  - focus on the reasonableness of the expense resulting from the action of the public utility judged as of time the action was taken;
  - determine whether a reasonable utility, knowing what the utility knew, or reasonably should have known at the time of the action, would reasonably have incurred all or some portion of the expense, in taking the same or some other prudent action; and,
  - apply other factors determined by the commission to be relevant consistent with the standards specified in this section

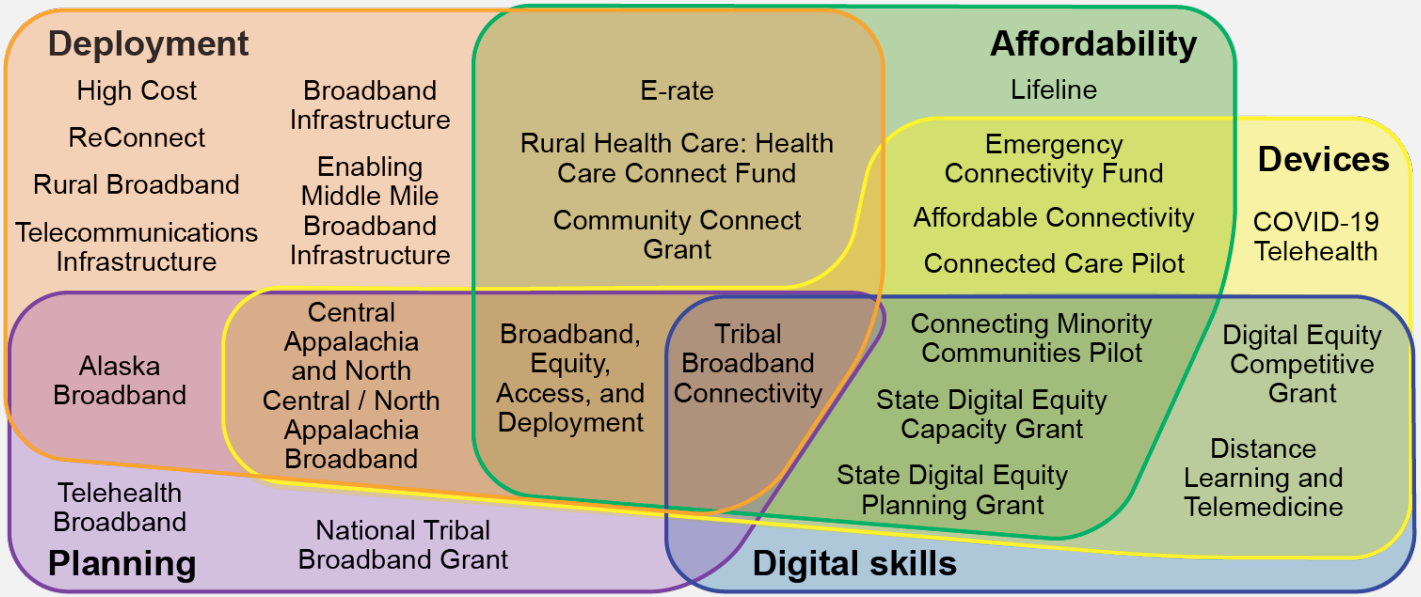
QUESTION 1

The utility has applied for (using its best efforts) available federal programs that could be used to offset some, or all, of the costs associated with meeting the public policy objective of providing its customers with broadband services

FEDERAL PROGRAMS

- In 2022 the Government Accounting Office (GAO) reported that it found over 100 programs administered by 15 agencies that address some aspect of broadband service

MOSAIC OF FEDERAL PROGRAMS



Source: GAO analysis. | GAO-22-104611

CARRIER ELIGIBLE DEPLOYMENT AND PLANNING FUND PROGRAMS

Federal Communications Commission

High-Cost Program	**Deployment** Construct, operate, and maintain infrastructure for broadband and voice service in rural, insular, and high-cost areas	Providers designated as eligible telecommunications carriers

CARRIER ELIGIBLE DEPLOYMENT AND PLANNING FUND PROGRAMS

U.S. Department of Agriculture

ReConnect Program	**Deployment** Construct, improve, or acquire facilities and equipment needed to provide broadband in rural areas that lack sufficient access	Cooperatives, mutual associations, corporations, limited liability companies, state or local governments, U.S. territories or possessions, federally recognized tribes	Grant, loan, loan/grant combination
Community Connect Grant Program	**Deployment, affordability** Construct broadband networks—including construction, acquisition, or leasing of facilities, such as land, spectrum, or buildings, in rural areas. Fund broadband service focused on “community-oriented connectivity”	Private corporations, limited liability companies, cooperatives, state or local governments, federally recognized tribes	Grant
Rural Broadband Program	**Deployment** Construct, improve, or acquire facilities and equipment needed to provide broadband to eligible rural areas	Corporations, limited liability companies, cooperatives, state or local governments, federally recognized tribes or tribal organizations	Loan, loan/ grant combination, loan guarantee

CARRIER ELIGIBLE DEPLOYMENT AND PLANNING FUND PROGRAMS

U.S. Department of Commerce – National Telecommunications and Information Administration (NTIA)

Broadband Equity, Access, and Deployment Program	Infrastructure Investment and Jobs Act	**Planning, deployment, affordability, devices** Projects that support planning, deployment, mapping, and adoption	States, D.C., territories (States to award sub-grantees that may include URTA members)	Grant
Enabling Middle Mile Broadband Infrastructure Program	Infrastructure Investment and Jobs Act	**Deployment** Construction, improvement, or acquisition of middle mile infrastructure	States, D.C., territories, political subdivisions of a state, tribal governments, utility providers, telecommunications companies or cooperatives, nonprofits, among others	Grant

URTA MEMBER ACTIVITY IN FEDERAL PROGRAMS

- URTA members participate in many deployment and planning programs
  - All participate in FCC high-cost programs
  - Utah has received many USDA ReConnect or Community Connect grants (Currently on 5th round to address <25/3 Mbps locations)
  - URTA members jointly applied through UDOT for NTIA middle mile support (235 applications nationally, oversubscribed 5:1)
  - Many expect to participate in NTIA/Utah BEAD program
- Each program has considerable planning, overhead, and regulatory oversight costs, making program participation a cost/benefit proposition
  - Federal programs can have different technical requirements that increases participation cost

REQUIRED PARTICIPATION IN FEDERAL PROGRAMS

- Utah Legislature specifically listed Federal USF as a source of revenue, but did not identify "all other federal programs" as a considered source of revenue
- No statutory requirement that COLR's participate in all available federal programs
- While management often seeks to maximize receipt of federal funds, there are significant costs associated with completing applications.
  - Over subscribed programs may not justify application costs
  - Significant compliance burdens/costs

QUESTION 2

The utility demonstrates that any incremental level of service (above the federal minimum for broadband service) it has chosen to provision broadband throughout its service territory has been done without incurring additional costs above what would be required to provide the federal minimum level of broadband service, or that such extra costs are either insignificant (compared to the total costs of the project), or that the extra costs can be justified by other public policy considerations.

FEDERAL REQUIREMENTS EVOLVE AND EXPAND

- Federal broadband requirements change over time
  - FCC's 2024 Section 706 Report (released March 2024) sets broadband obligations at 100/20 Mbps, up from 25/3Mbps set in 2015, and up from 10/1 Mbps and 4/1 Mbps earlier
  - FCC also establishes 1Gbps/500Mbps as its target in the longer term
- These requirement changes have occurred within the span of one deployment cycle
- URTA members have the expectation that added or increased obligations in the future is certain—this requires a forward-looking network design to anticipate obligations that will be imposed during the life of the investment

FEDERAL GUIDANCE ON NETWORK COSTS

- The FCC has found that fiber-to-the-premises (FTTP) networks are the least-cost, most efficient networks to meet federal obligations and future demand needs of customers
  - The FCC's modeling for federal high-cost USF support uses a FTTP network design
- URTA member experience with FTTP networks shows that fiber-based networks are efficient and result in lower maintenance costs than copper or hybrid systems

DEPLOYMENT COSTS ARE LUMPY OR NON-CONTINUOUS

- Fiber deployments employ fiber sheaths that contain multiple fiber strands. The number is strands per sheath is largely set by the fiber vendors, with common sized sheaths being the most economical to purchase
- The cost of fiber deployment is largely driven by the sheath install - little additional cost is incurred by changing the size of the sheath
  - In buried deployment, the process of digging the trench and placing the sheath is most of the cost of installation

ELECTRONIC INVESTMENT IS ALSO LUMPY

- The standard fiber network electronics include capacities that exceed the current federal broadband obligations
- The most common FTTP electronics used today is the 10G /10G XGS-PON technology which supports multi-gig offerings
- Using a different standard electronics package with lower speeds results in higher costs
  - Vendor support and supply drives electronics costs. Using the most common package results in economies of scale that is passed on in part to providers in the form of lower prices
  - Lower equipment versions are either not supported or are bespoke configurations that require special handling by the vendor—thereby increasing customer costs
- The long-term, least-cost, most efficient electronics are currently used by the industry to reasonably account for costs, obligations, and current/future network demands

FORWARD-LOOKING NETWORKS ANTICIPATE PUBLIC POLICY OBLIGATIONS

- Current national public policy is driving broadband toward 1Gbps service in the near term
- Customer demand forecasts point to multi Gbps broadband service by 2030
- As FTTP networks can accommodate these expected broadband services, the forward-looking least cost network design is a FTTP network that is scalable to meet future obligations and customer demands

INCREMENTAL COSTS ARE NOT MATERIAL TO DEPLOY CAPACITY BEYOND CURRENT OBLIGATIONS

- The incremental costs of designing future proof networks are insignificant in most cases, and any additional costs are typically reasonable, as required by Utah Code, particularly when factoring in state public policy considerations in deploying broadband networks
- Additionally, at the federal level the FCC examined numerous network designs for cost efficiency and long-term reliability and concluded that a FTTP network design is the most efficient design to deliver voice and broadband over the long term

QUESTION 3

The utility has conducted a process that demonstrates the design of the network is the least cost design

REASONABLE DESIGN NOT LEAST COST DESIGN

- While Least Cost Design is a term of art used in economics, Utah Code does not require "least cost design." Utah Code requires a COLR's costs to be "reasonable"
- Nevertheless, key concepts used by URTA members minimize costs in various ways:
  - Future or forward-looking demand
  - Consideration of current and anticipated future obligations
  - Scalability of technology choice to minimize premature upgrades during life cycle of the deployment

UTAH CODE 54-4-4 INFORMS COMMISSION ON EVALUATION STANDARD

- The standard rests on the reasonableness of the expense resulting from the action of the public utility judged as of time the action was taken
- Determine whether, knowing what the utility knew, or reasonably should have known at the time of the action, would reasonably have incurred all or some portion of the expense, in taking the same or some other prudent action

PUBLIC POLICY FACTORS

- Utah's Digital Connectivity Plan is designed to serve as a roadmap for ensuring that all Utahns, whether urban or rural, have access to the digital world
- The Strategic Plan adopted by the State of Utah has identified the prioritization of the deployment of fiber optics everywhere where costs are feasible
- Additionally, to maximize the use of funding to provide the most value to unserved and underserved communities, the State of Utah seeks to deploy "future-proof broadband technology" by prioritizing "fiber-based networks, given their distinct advantages of being sustainable long-term, being 'future ready,' and having lower recurring expenses relative to other technologies"

QUESTION 4

The utility has chosen the lessor cost option of self-construction versus contracted construction

CONSTRUCTION COSTS

- It is not axiomatic that one method or the other minimizes costs as internal labor costs are longer-term
- Minimizing project costs involves estimating the long-term labor load to properly size the internal crews. Projects that can be done with the internal crew are generally smaller and not as time sensitive
- The Utah Code prudence standard guides the evaluation to what the provider did knowing what the provider knew at the time—this guidance discourages second-guessing management decisions made with diligence at the time of construction

CONSTRUCTION COSTS

URTA members examine whether a project cost is minimized using internal construction teams or contracted construction teams

The decision to use either internal or external teams depends on a variety of factors, for example:

Speed of project, and	Scope of project – large projects are better with external teams because internal teams are efficiently sized to address smaller projects

QUESTION 5

The rate approved by the Federal Communications Commission for wholesale broadband Internet access service which is used for reference pricing is for a comparable level (e.g., speed) of service capability

FEDERAL WHOLESALE RATE

- The FCC rate used for reference pricing (a/k/a, the Consumer Broadband Only Loop CBOL rate) is the same rate for all broadband service speed options
- States follow the guidance of the FCC on this matter

THANK YOU