Attachment B

Colorado Public Utilities Commission

Legislators' Briefing Materials

January 2013

Dora
Department of Regulatory Agencies

Dora Public Utilities Commission

Department of Regulatory Agencies

- Electricity, Natural Gas, Steam, & Water
- Telecom
- Transportation
- Rail/Transit Safety
- Pipeline Safety

The Colorado Public Utilities Commission (PUC) was created by the General Assembly in 1913 with constitutional and statutory authority to oversee rates, service quality, and safety of public utilities in Colorado.

The PUC balances consumers' need for reliable service and reasonable rates with regulated entities' need to maintain their financial integrity while attracting sufficient capital to remain in business. The Commission also assures that consumers are protected through utility safety regulations.

The PUC is empowered with two types of authority

Quasi-judicial	Quasi-legislative
Presiding over utility filings	Setting Rates
Assuring due process for all parties	Promulgating rules

The PUC's mandate includes:

- Establishing just and reasonable rates and overseeing territories and service quality of investor owned electric, gas, steam, water and telecommunications
- Maintaining fairness of rates and territories of common carriers such as:
  - taxis
  - shuttles
  - charters
  - sightseeing carriers
- Ensuring the safety of residents and the traveling public through enforcement of:
  - Safety and insurance requirements:
    - passenger carriers (including luxury limousines, charter buses, fire crew transport, and off-road scenic charters), common carriers and contract carriers
    - household goods movers
    - towing operators
  - Safety regulations:
    - natural gas pipelines
    - light rail systems and highway-rail crossings

January 2013

Consumer Savings

The PUC approves utility rates and resolves consumer complaints, resulting in financial benefits to Colorado's consumers. Consumer savings include the difference between what utilities request in rate increases and what the Commission approves, as well as bill credits and refunds realized through PUC External Affairs interventions.

Consumer savings for each $1 of PUC budget

2008-2009	2009-2010	2010-2011	2011-2012
$6.36	$6.91	$6.63	$11.09

Consumer Affairs

The Consumer Affairs unit resolves complaints between customers and regulated utilities – including electric, gas, water, telecommunications and transportation utilities.

The unit fields about ***8,500 phone calls*** per year. About 2,500 contacts per year require follow-up action from the consumer assistance staff.

The Consumer Affairs unit secured ***more than $279,000 in credits and refunds*** on behalf of individual utility customers during the last fiscal year.

PUC Contact Information

Director: Doug Dean
Commissioners: Joshua Epel **(Chairman),** James Tarpey, Pam Patton

All correspondence should be sent to the Colorado Public Utilities Commission, 1560 Broadway, Suite 250, Denver, CO 80202. For additional information about the PUC, call **(303) 894-2007** or visit our website at: www.dora.co.gov/puc

ENERGY REGULATION OVERVIEW

WHAT IS THE COMMISSION'S ROLE CONCERNING ENERGY?

- The Commission has the statutory duty to assure that energy utility customers receive safe and adequate service at just and reasonable rates while providing utility shareholders the opportunity to earn a fair rate of return on investments. (§ 40-3-101, C.R.S.)

WHO DOES THE COMMISSION REGULATE IN THE ENERGY SECTOR?

- The Commission has very broad regulatory authority over investor-owned utilities providing electric, gas or steam services.
- The Commission has limited regulatory authority over non-profit generation and transmission electric associations, cooperative electric associations, and municipal utilities providing service beyond municipal boundaries.

WHAT SPECIFIC FUNCTIONS DOES THE COMMISSION PERFORM?
(§40-5-101 through 105, C.R.S.)

- Issues Certificates of Public Convenience and Necessity (CPCN) Public, which allow a utility to operate in a service territory. The Commission must determine whether applicants are willing and able to provide utility service without duplication of service by another utility.
- Authorizes the exercise of franchise agreements.
- Approves facility acquisitions. The Commission assesses whether public convenience and necessity requires construction or acquisition of facilities.
- Adopts rates, charges, and tariffs. The Commission adopts rates that are generally based on the cost to provide service including a reasonable rate of return on utility investments.
- Monitors service quality and adequacy. The Commission is responsible for assuring that regulated utility monopolies provide safe, adequate, and efficient service to customers.
- Resolves consumer complaints related to energy utility service. (§ 40-6-108, C.R.S.).

WHAT MAJOR ENERGY REGULATORY FILINGS WILL BE CONSIDERED IN 2013?

- The two investor-owned electric utilities (Black Hills and Public Service Company of Colorado, dba Xcel Energy) are in the midst of implementing their respective Clean Air – Clean Jobs Act plans. This requires Commission oversight of rate and facilities filings related to these major capital expenditures to retrofit or replace existing coal-fired generation. (§40-3.2-201, *et. seq.*, C.R.S.)
- Several of the natural gas utilities have filed applications seeking expedited recovery of costs associated with replacement of aging pipelines for transmission and distribution of natural gas. These filing consist of general rate cases and applications for approval of special riders.
- Colorado's only steam utility has filed a rate case, an application for authority to replace a large percentage of its boiler plant and to shift much of the steam business costs to gas customers.

Dora Department of Regulatory Agencies Public Utilities Commission

ENERGY REGULATION OVERVIEW

WHAT IS THE STATUS OF THE REGULATED ENERGY UTILITY SECTOR IN COLORADO?

- Public Service Company of Colorado (dba Xcel Energy) provides electric service to 1.4 million customers, natural gas service to 1.3 million customers, and steam service to 133 downtown Denver customers.
- Black Hills provides electric service to 94,000 customers from Rocky Ford to Canon City, and natural gas service to about 44,000 customers from Castle Rock to Burlington, and from Parker to Fountain, and Woodland Park.
- Atmos provides natural gas service to 111,000 customers throughout Colorado: Northwest - Meeker, Craig, Steamboat; Southwest - Durango and towns to the west and north; Central – Canon City, Buena Vista, Salida, Gunnison, and Crested Butte; Greeley – Greeley towns north and south; and Southeast – towns in Kiowa, Bent, Prowers, and Baca Counties.
- SourceGas provides natural gas service to 85,000 customers throughout Colorado: Northeast – Julesburg to Akron and Southeast to Wray; West – Avon to Aspen, west to Collbran and south to Telluride; North Central – Frederick and surrounding towns, and Wellington; Arkansas Valley – towns in Pueblo, Crowley, Otero and Bent Counties; and Southwest – Pagosa Springs to Bayfield.
- Colorado Natural Gas provides natural gas service to 19,000 customers around Bailey, Cripple Creek, Pueblo West, and East – Watkins to Deer Trail, Kit Carson, and Sheridan Lake.

TELECOM REGULATION OVERVIEW

WHAT IS THE COMMISSION'S ROLE CONCERNING TELECOMMUNICATIONS?

- The Commission is tasked with promoting a competitive telecommunications marketplace while protecting and maintaining the availability of high-quality telecommunications services, including basic voice services at affordable rates. (§40-15-101 C.R.S.)

WHAT TYPES OF TELECOM SERVICE DOES THE COMMISSION REGULATE?

- The Commission regulates the providers of ***intra***state residential and business retail and wholesale voice services, as well as telecom providers of basic emergency services (9-1-1 service). There are different types of telecommunications providers and the Commission's jurisdiction varies by type of provider
    - incumbent local exchange carriers (ILECs)
    - rural local exchange carriers (RLECs)
    - competitive local exchange carriers (CLECs)
    - intra or interlata exchange carriers (IXCs)
    - Basic Emergency Service Providers (BESPs), and
    - toll resellers
- Specific regulated services include, basic residential voice service, up to 5 business voice lines, white pages directory listings, directory assistance listings, operator services, some custom calling features, basic emergency service, switched access, wholesale interconnection, private lines with fewer than 24 channels.

WHAT SPECIFIC FUNCTIONS DOES THE COMMISSION PERFORM?

- The Commission regulates basic voice service providers: the authority to do business; rates, terms and conditions of service; service availability; service quality; and consumer complaints.
- In general the Commission does not regulate wireless companies but may, on a limited basis, regulate the company if it receives state or federal subsidies.
- Regulation regarding broadband services is currently being defined by the FCC. The Commission's role is limited to those situations when providers receive federal subsidies to deploy broadband to unserved areas.
- The Commission regulates local 9-1-1 authority requests for surcharge increases above the statutory limit and is the state numbering administrator.
- The Commission administers these state telecom programs: No-call List; Low Income Telephone Assistance Program; Telephone Relay Services for the deaf, hard of hearing, deaf-blind, or speech-disabled; Colorado High Cost Support Mechanism which assures affordability of basic service in rural high cost areas.
- The Commission implements regulations delegated to it by the FCC, such as certification for federal universal service funding.

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Department of Regulatory Agencies

TELECOM REGULATION OVERVIEW

WHAT IS THE STATUS OF TELECOM SERVICES TODAY?

- The telecommunications industry has experienced significant technological change over the past 20 years. The telecommunications services environment now encompasses a variety of technologies, including wireline, wireless and satellite, voice and data services.
- In the past three decades, the market has evolved from a single provider to competitive long distance service in the 1990s, then to growing competition in the wireline and wireless markets in the 21st Century. This has primarily been due to new technologies, including the widespread deployment of the Internet and Internet Protocol (IP) technology.
- Communications services providers today utilize copper, coaxial cable, fiber, and wireless spectrum, in conjunction with traditional switching, IP, cellular, and Wi-Fi technologies to provide services ranging from basic voice to high speed broadband data from fixed and mobile locations.
- In an effort to balance market competition and growth while simultaneously providing assurance of the continued availability and interoperability of all communications modes, an interrelated set of federal and state regulations governing retail and wholesale telecom operations continues to evolve.

WHAT IS THE STATUS OF THE TELECOM MARKET IN COLORADO?

- There are several hundred wireline and wireless telecommunications companies that serve Colorado today. In order to ensure that customers of different companies, the Commission regulates certain aspects of each of these types of companies.

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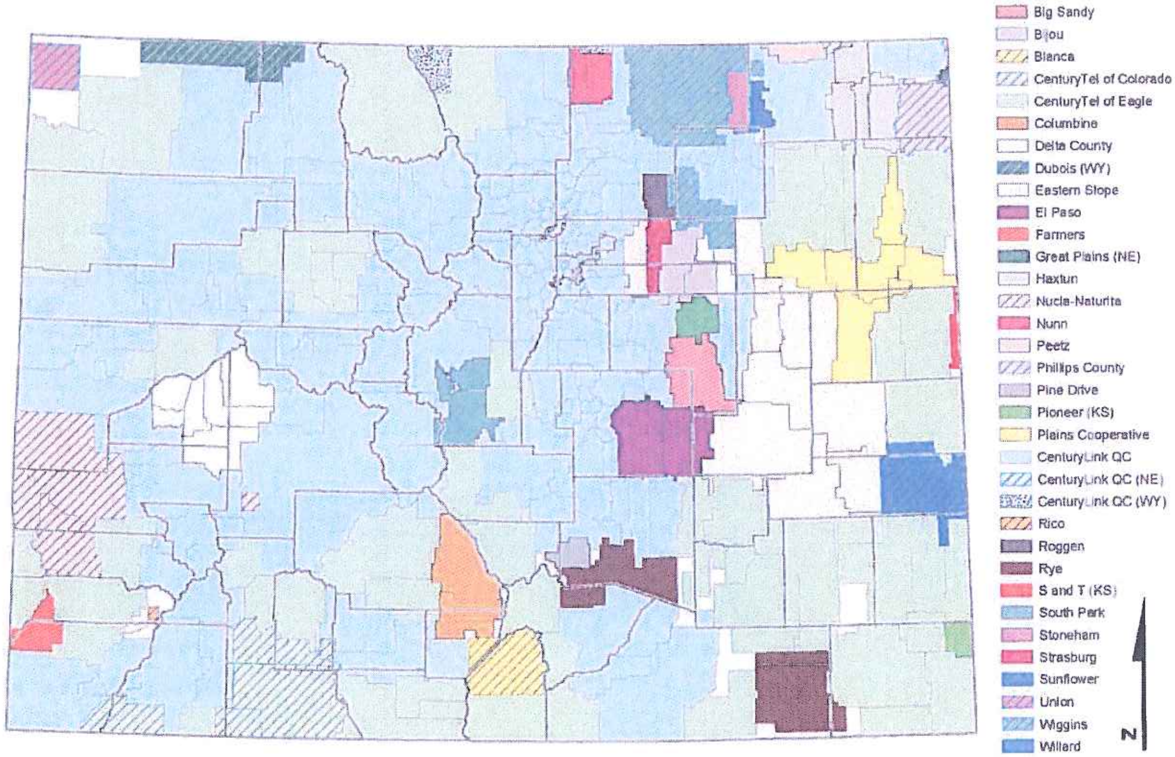
TELECOM REGULATION OVERVIEW

Incumbent
Colorado Telephone Service Providers



map by Mid-States Consultants for Colorado Telecommunications Association (CTA)

- The map above depicts the voice service territories for the **incumbent** provider CenturyLink and the other 29 rural incumbent carriers. Incumbent carriers were those companies providing service in an area when the Telecommunications Act of 1996 came into effect.
- There are considerably more telecommunications providers in urban areas of the state than rural.
- Competitive providers include AT&T, Comcast, Verizon, Sprint, Level 3, Zayo, NE Colorado Cellular, XO Communications, and Windstream.
- All of the telecom companies have a regulatory obligation to provide basic voice services throughout their entire territory.
- Within each of these areas, one or more competitive wireline and wireless carrier may serve customers, as well as generally operate with limited or no regulatory oversight by the Commission, if they are regulated by the FCC.

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TRANSPORTATION REGULATION OVERVIEW

Motor Carriers Regulated by the Commission

- The Commission oversees a variety of motor carriers, and is responsible for protecting the public interest in a variety of ways.
- The Commission carries out this responsibility through inspecting motor vehicles, facilities and records and documents of the motor carriers and persons involved.
- Statutory authority and duties are set forth at §40-10.1 and 10.5, C.R.S.

Scope of PUC Regulation (§40-10.1, Parts 2-5, C.R.S)

	Market Entry	Rates	Service Quality	Operational Scope	Insurance	Safety	Compliance
Common Carrier *Taxi, Shuttle, Scheduled, Charter and Sightseeing Services*	x	x	x	x	x	x	x
Contract Carrier *Transportation carriers providing services pursuant to a special contract*	x	x	x	x	x	x	x
Limited Regulation Passenger Carrier *Charter Scenic Bus, Children's Activity Bus, Fire Crew Transport, Luxury Limousine, Off-road scenic charter*				x	x	x	x
Towing Carrier		(x)*		x	x	x	x
Mover				x	x		x
UCR Federal Registration Program *For interstate transportation*	Annual registration with the Commission						
Hazmat Transportation (§42-20-201)	Must obtain permit from Commission						

*Commission regulates rates for nonconsensual tows

TRANSPORTATION REGULATION OVERVIEW

Transportation NOT Subject to Regulation (§40-10.1-105, C.R.S.)

- Certain vehicles designed and used for special purposes
  - Transportation by hearse, ambulance, or other emergency vehicle
  - Transportation by motor vehicle designed and used for nonemergency transport of individuals with disabilities
  - Amusement rides - the transportation is incidental
- Non-profit transportation (40-1.1 and 39-22-509)
  - People service transportation
  - Volunteer transportation
- Ridesharing arrangements
- Transportation of children to and from school and school related activities
- Private transportation
- By vehicles upon fixed rails
- Transportation by Federal or State Government
- Transportation of property, except towing and movers
- Transportation of repossessed property

Commission's Rulemaking and Consumer Protection Duties

Make Rules and Prescribe Rates (§40-10.1-106, C.R.S.)	• Ensure: public safety; financial responsibility; consumer protection; service quality; provision of service to public. • Define the circumstances under which a towing carrier may perform a nonconsensual tow; the responsibilities and facilities of a towing carrier; the minimum and maximum rates for nonconsensual tows and storage
Filing of Financial Responsibility (§40-10.1-107, C.R.S.)	• Each motor carrier shall maintain and file evidence of financial responsibility. • No termination of a policy or bond is valid without >= 30 day notice before termination.
Safety Rules (§40-10.1-108, C.R.S.)	• Authority and duty to establish safety rules (40-10.1-108, C.R.S.) • Safety rules are applicable to common, contract, and limited regulation carriers • Safety rules are NOT applicable to Towing and Movers
Criminal History Checks (§40-10.1-110, C.R.S.)	• PUC qualifies or disqualifies Taxi drivers and Limited Regulation drivers pursuant to statutory guidelines

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Department of Regulatory Agencies

TRANSPORTATION REGULATION OVERVIEW

Fees: Filing, Issuance and Annual (§40-10.1-111. C.R.S.)

	APPLICATION		PER VEHICLE FEE		ISSUANCE FEE	
	Amount	*Frequency*	*Amount*	*Frequency*	*Amount*	*Frequency*
Common Carrier	$ 35.00	one-time	$ 5.00	annual	$ 5.00	one-time
Taxi - Metro	$ 800.00	one-time	$ 5.00	annual	$ 5.00	one-time
Contract Carrier	$ 35.00	one-time	$ 5.00	annual	$ 5.00	one-time
Limited Regulation	$ 0.00	n/a	$ 5.00	annual	n/a	n/a
Towing	$ 150.00	annual	$5.00	annual	n/a	n/a
Mover	$ 325.00	annual	$0.00	n/a	n/a	n/a

TRANSPORTATION REGULATION OVERVIEW

Commission Enforcement and Penalty Authority
(It is the duty of PUC to see that statutes affecting persons subject to Articles 10.1 and 10.5 of Title 40 are enforced and obeyed and that violations thereof are promptly prosecuted and penalties recovered and collected.)

Problem	Result/Commission Action	Notes
Violation of Article 10.1; refusal to observe PUC rules or order of the PUC; or for exceeding authority granted by a certificate or permit	PUC may order cease and desist, or may suspend, revoke, alter, or amend any Certificate or Permit	A motor carrier suspended or revoked more than twice for cause is not eligible for another such certificate or permit for 2 years after the date of the third revocation
Failure to maintain insurance	PUC shall summarily suspend a motor carrier	
Provides transportation in intrastate commerce without first obtaining a certificate or permit, violates any of the terms thereof, fails or refuses to make any return or report required by the PUC, denies access to books and records, or makes false return or report	Class 2 Misdemeanor	Each day is a separate offense
Persons violating 40-10.1, 40-10.5 or PUC rules	May be subject to fines Repeat Violations: ▪ Persons receiving a 2nd civil penalty within 1 year, 2x the amount ▪ Persons receiving more than 2 civil penalties within 1 year, 3x the amount ▪ A person who fails to pay a civil penalty for a second or subsequent violation may be subject to have vehicle registration cancelled by the Department of Revenue. Registration is denied until all penalties are paid.	Enforcement of Civil Penalties (40-7-116) ▪ Investigative personnel have authority to issue civil penalty assessments ▪ Notice shall be tendered in person or by certified mail or process server ▪ At hearing PUC has burden of demonstrating violation by a preponderance of evidence

Dora Public Utilities Commission
Department of Regulatory Agencies

RAILROAD AND RAIL TRANSIT SAFETY OVERVIEW

WHAT IS THE COMMISSION'S ROLE IN RAILROAD SAFETY?

- The Commission regulates all railroads that operate in the State of Colorado for safety:
    - Safety at public railroad crossings
    - Clearance safety requirements
    - Railroad peace officers
    - Allocation of costs of railroad crossing signals, crossing bridges or tunnels
    - Administration of the Highway-Rail Crossing Signalization Fund

WHAT IS THE COMMISSION'S ROLE IN RAIL TRANSIT SAFETY?

- The Commission regulates the Regional Transportation District Light Rail System for safety:
    - Overseeing, investigating accidents and hazards
    - Auditing for safety the rail fixed guideway systems, as required under federal law.

CRITICAL ISSUE: RAIL CROSSING SAFETY AND COST ALLOCATION

- The Commission reviews proposed safety changes at railroad crossings to accommodate changing traffic conditions.
- Municipalities, counties, CDOT and the affected railroads are all involved in cost allocation. Typically the parties agree to an allocation of costs for proposed changes.
- For at-grade crossings, Applicants can request that some costs be allocated to the railroad and some costs to the Highway-rail crossing signalization fund. With allocation to this fund, the statutes require a minimum of 20 percent of the costs be allocated to the railroad with the remaining costs split between the applicant and the fund.
- For grade separated crossings, the applicant can request that the cost of the bridge or tunnel structure be allocated between the railroad and the roadway authority (municipality, county or state).

January 2013

RAILROAD AND RAIL TRANSIT SAFETY OVERVIEW

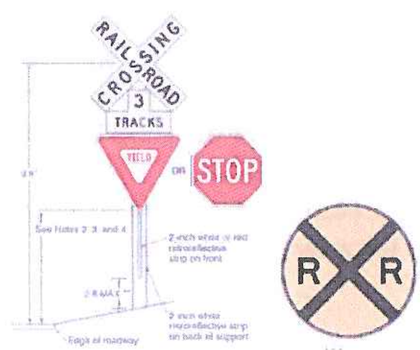
Types of railroad crossings

At-grade crossings –
vehicles/pedestrians/bicycles and trains are at the same level and only one can occupy the crossing at a time.

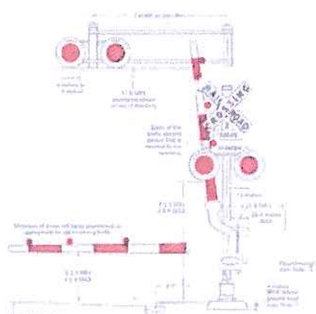
Grade-separated crossings –
vehicles/pedestrians/bicycles and trains can use the crossing at the same time with one mode being on either a bridge over or in a tunnel under the other mode.

Types of railroad crossing warnings

Passive warning – only signs are posted including railroad crossing signs and advance warning signs that a driver/pedestrian/bicyclist know that they are approaching a railroad crossing.



Active warning – includes flashing red lights alone or with red and white striped gates that will lower to block the entrance into the crossing, traffic signals, and blank-out signs that will light up when the train is near the crossing.



Dora Public Utilities Commission
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UTILITY ISSUES AND TOPICS

Telecommunications Rulemaking

Renewable Energy Standard (RES)

Demand Side Management (DSM)

Electric and Natural Gas Vehicles

January 2013

TELECOMMUNICATIONS RULEMAKING

CURRENT RULEMAKING, DOCKET NO. 12R-862T

On December 17, 2012, the Commission issued its Order adopting rules that create a process to:

- Identify areas where effective competition exists for voice services
- Reduce regulation in areas of effective competition
- Reduce or eliminate state subsidies where they are not needed
- Maintain state funding where effective competition does not exist and where subsidies are needed to ensure availability and affordability of voice service; and
- Continue to regulate emergency telephone service in all areas of the State

COMPETITION IN VOICE SERVICES

The Commission is tasked with implementing the legislative intent of promoting a competitive telecommunications marketplace while protecting and maintaining the wide availability of high-quality telecommunications services, including basic voice services. As the marketplace has evolved, voice services are available through a number of technologies, including wireline, wireless, cable telephony, and over the Internet. The Commission has found that regulation of voice services, including the provision of subsidies, is not as necessary as was previously required due to these changed market conditions

COLORADO HIGH COST SUPPORT MECHANISM

By statute, the Legislature encourages the Commission, where competition is not immediately possible, to use interim marketplace mechanisms to ensure access to basic voice services. One such mechanism, known as the High Cost Support Mechanism (HCSM), provides subsidies to providers to allow reimbursement for reasonable costs that exceed revenues for basic voice service in high cost support areas. Where competition is possible, the rules eliminate or revise HCSM subsidies because customers are able to receive services from multiple providers.

REGULATORY REFORM IN COMPETITIVE AREAS

The Commission's rules set up the process that will identify areas in which effective competition for basic services exists. These rules will accomplish the following:

- Include all technologies capable of providing voice services in the analysis of competitive areas
- Apply relaxed regulation and market-based principles where basic voice services are competitive
- Reduce or eliminate HCSM support in competitive areas
- Allow providers to apply for continued HCSM support where costs exceed revenues, even if the area is competitive
- Allow providers in areas without competition to still receive HCSM subsidies and be subject to traditional regulation.

TELECOMMUNICATIONS RULEMAKING

This rulemaking is just the first step in an ongoing process to update the regulatory framework to reflect current market conditions. The Commission anticipates the following process for continuing telecom reform:

- Current rulemaking to determine the process
- Commission findings to determine competitive areas for basic voice service
- Opportunity for telecom providers to request Colorado High Cost Support Mechanism for basic voice service funding in areas of effective competition
- Additional rulemakings, as necessary

WILL BROADBAND (I.E., INTERNET) SERVICES BE IMPACTED?
No. The high cost fund provides funding for basic voice services. This does not include data or information services provided on the Internet via broadband. Voice services may be provided over broadband, but services that are not basic voice, for example, a data plan, do not receive high cost support.

WILL REMOVING HIGH COST SUBSIDIES IMPACT LOW-INCOME CONSUMERS?
No. Other support mechanisms exist to assist low-income consumers. The high cost fund reimburses providers for reasonable costs when providing basic services. If a low income consumer is eligible for assistance through other available support mechanisms, that assistance is not impacted by these rules.

WHAT IF TRULY HIGH COST CUSTOMERS ARE IN A COMPETITIVE AREA?
The provider may still apply for funding. Providers in areas deemed "effective competition areas" are permitted under the rules to apply for funding; however, because competition indicates that voice services are available and affordable in these areas, the provider will have an increased burden in showing that their costs exceed revenues and that it is entitled to receive funding.

WHAT DOES THE COMMISSION ANTICIPATE ADDITIONAL RULE UPDATES WILL ADDRESS?
Additional rule updates will further address the changing telecommunications marketplace, including federal regulatory updates by the Federal Communications Commission. These rules are just one step in an ongoing process aimed at recognizing a dynamic and competitive telecommunications marketplace. However, the Commission recognizes that many areas of Colorado, including some rural areas, do not have the robust competition many urban areas enjoy. These ongoing efforts and rule updates will continue to reflect this diverse market landscape throughout Colorado to both protect consumers and provide market benefits where possible.

Dora Public Utilities Commission
Department of Regulatory Agencies

RENEWABLE ENERGY STANDARD

WHAT DOES THE RENEWABLE ENERGY STANDARD (RES) REQUIRE?
(The RES statute is §40-2-124, C.R.S.)

- Retail electric service in Colorado is provided through three types of utilities:
    - Investor-Owned (Black Hills Energy and Public Service Co. of Colorado (dba Xcel Energy)
    - Municipal (overseen by city/town councils)
    - Cooperative Electric Associations (overseen by the members)
- The Investor-Owned Utilities (IOUs) must generate 30% of their retail electricity sales from renewable sources by 2020, meeting incremental goals along the way.
    - IOU's must receive at least 3% of retail sales from renewable "distributed generation." This is generation occurring on the premises of customers or at a Colorado renewable energy resource of 30 MW or less.
- Municipal Utilities and Cooperative Electric Associations must provide 10% of their retail electric sales from renewable sources by 2020.

HOW DOES A UTILITY COMPLY WITH THE RES?

- Compliance is measured relative to retail electricity sales, measured in Megawatt hours (MWh).
- A utility acquires Renewable Energy Credits (RECs) by adding qualifying generation to its system, purchasing energy from qualifying generators or purchasing RECs from other parties.
- One REC equals 1 MWh of production from a renewable generation resource. Renewable generation projects located in-state receive a multiplier of 1.25 when counting the output toward RES compliance.

HOW IS "RENEWABLE ENERGY" DEFINED?

- State statute defines the eligible energy resources for complying with the Renewable Energy Standard (RES) in two categories:
    - Renewable energy, which includes solar, wind, geothermal, biomass, and small hydropower
    - Recycled energy, which uses otherwise lost energy to generate electricity

WHAT DOES A 30% RES MEAN TO THE ELECTRIC SYSTEMS OF PUBLIC SERVICE AND BLACK HILLS?

- In 2011 Black Hills sold about 2.1 million MWh. Projected retail sales in 2020 are a few percent higher than 2011, thus 2020 compliance is likely to be in the range of 650,000 RECs for that year. In terms of MWh, that is a little less than the electricity used by the Loveland municipal utility (32,931 customers).
- In 2011 Public Service sold about 28.5 million MWh. Projected retail sales in 2020 are a few percent higher than 2011, thus 2020 compliance is likely to be in the range of 9 million RECs for that year. In terms of MWh, that is about twice the electricity used by the Colorado Springs Utility (211,188 customers).

RENEWABLE ENERGY STANDARD

WHAT OTHER CONDITIONS ARE PLACED UPON HOW UTILITIES COMPLY WITH THE RES?

- The maximum retail rate impact resulting from RES compliance allowed under § 40-1-124(1)(g), C.R.S. is two percent (2%).
  - The rate impact is calculated as the difference between the cost of the renewable energy purchases and the cost of new fossil fuel based energy to provide the same amount of energy.
  - To pay for this difference, Public Service and Black Hills collect funds through the Renewable Energy Standard Adjustment (RESA), a 2% surcharge on the electricity bill for all retail customers.

HOW IS PUBLIC SERVICE DOING IN ACHIEVING THE RES GOALS?

- In 2011, Public Service caused to be generated 4.5 million RECs. This is equivalent to 16% of its retail sales (20% when using the 1.25 in-state multiplier).
- Public Service's 2011 goal was 12%, which is about 3.4 million RECs. Since the 2011 RES goal for IOUs was 12%, Pubic Service has excess RECs, for which it has several options:
  - Sell them for profit; (most of the profits are returned to the ratepayers; in 2011 Public Service sold 1.7 million RECs.)
  - "Bank" them for compliance with the RES in future years; (RECs can be banked for up to 5 years, by PUC rule), or
  - Retire them to demonstrate compliance in excess of the RES

PUBLIC SERVICE AND RES COMPLIANCE: LOOKING OUT TOWARD 2020

- Early compliance with the RES has provided enough excess RECs to Public Service that it expects to be able to demonstrate compliance through 2028 without acquiring additional utility-scale wind or solar resources.
- Public Service may need to acquire additional small-scale resources for compliance with the distributed generation requirements of the RES.

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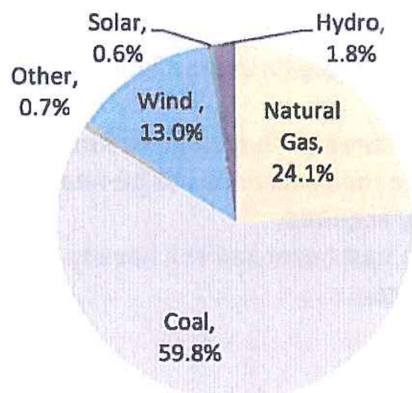
Department of Regulatory Agencies

RENEWABLE ENERGY STANDARD

WHAT IS THE MIX OF GENERATION SOURCES IN USE BY PUBLIC SERVICE?

Public Service Company of Colorado's Generation System (Owned and Purchased Power)

Generation Mix (% of MWh) in 2011



Capacity Mix

- The system peak output of Public Service's system was about 7,900 MW
- As of the end of 2012, Public Service has more than 2,100 MW of wind and 80 MW of utility-scale solar on its system. The Company will also have over 135 MW of on-site solar resources and plans to acquire 36 MW more on-site solar in 2013.
- While 2,100 MW of wind looks to be more than one quarter of the 2011 system peak of 7,900 MW, renewable resources are not dispatchable and thus represent a smaller amount of the system's capacity.

HOW IS BLACK HILLS DOING IN ACHIEVING THE REC GOALS?

- In 2011, Black Hills caused to be generated 218,532 RECs
- The goal for 2011 was 12% of sales from renewable energy, which was about 219,000 RECS. Black Hills acquired excess RECs in previous years and used a portion of those banked RECs for 2011 compliance. They banked the RECs acquired in 2011 for compliance in future years.
- Lacking economies of scale for wind purchases and with a smaller market to attract PV installers, Black Hills faces more challenges in complying with RES requirements.
    - Black Hills recently reported to the Commission that without the acquisition of additional renewable resources, to remain under the 2% cap on the retail rate impact, it will only be able to provide 7% of its total energy from eligible energy resources starting in 2016.

RENEWABLE ENERGY STANDARD

ISSUES/CHALLENGES ASSOCIATED WITH RES COMPLIANCE

- Unlike fossil-fuel resources that can be dispatched to meet demand, wind and solar resources installed to date are variable generators that require sophisticated forecasting systems and the availability of other flexible generators for successful integration with the utility system.
    - Public Service is managing a significant amount of wind on its system and faces operational challenges when wind generation ramps up or down quickly.
- The retail rate impact of the RES depends on how expensive renewable resources are compared to conventional gas-fired generation.
    - When natural gas costs are low and when there is no price on carbon emissions, the relative cost of renewables is greater.
    - Under these conditions, the RESA surcharge at 2% may not be enough to fund the acquisition of more eligible energy resources, since the collections will be needed to cover the incremental costs of renewables already acquired.
    - In addition, both IOUs loaned funds to the RESA in past years and will have to use future RESA collections to bring the RESA back into balance.

DEMAND SIDE MANAGEMENT

WHAT IS "DEMAND SIDE MANAGEMENT?"

- As customers use more electricity, utilities must acquire additional resources to meet that growth, both in energy used (MWh) and total demand (MW). Utilities meet growth needs with new generation (*e.g.,* gas plants or wind farms) or investment in helping customers reduce energy use and demand on the system (*e.g.,* more efficient lighting).
- Demand Side Management (DSM) is an investment to reduce both future energy use and demand, both MWh and MW. Because Colorado statute requires DSM resources to be cost-effective, these resources are a lower cost way for utilities to meet their resource needs.

WHAT DO STATE STATUTES REQUIRE CONCERNING DSM? (§40-3.2-104, C.R.S.)

Statutory requirements pertain to investor-owned utilities, Public Service Co. of Colorado (dba Xcel) and Black Hills. These include:

- Establishing minimum DSM savings goals of a 5% reduction in energy sales (MWh) and a 5% reduction in peak demand (MW), based on 2006 levels, to be achieved by 2018.
- Offering programs to all classes of customers: residential, commercial, and industrial.
- Clarifying that setting goals and overseeing programs is the purview of the PUC.
- Requiring the Commission to submit an annual report on DSM by April 1 of each year.

WHAT HAS BEEN THE RESULT OF DSM TO DATE?

- In 2008, the Commission established initial electric energy savings goals for Public Service that exceeded the statutory minimums. The goals aimed to reduce sales 1.15% per year on average. Black Hills Electric has comparable goals. (Docket No. 07A-420E)
- In 2011, the Commission increased the savings goals for PSCo based on the record in a proceeding. The goal in 2013 is a 1.21% reduction in sales. The goal grows yearly to a 1.68% reduction in sales in 2020. Goals for Black Hills were not changed. (Docket No. 10A-554EG)
- Combined PSCo and Black Hills have completed three years of DSM programs, reporting:
    - 812,000 MWh of energy savings and demand savings of 213 MW[1]
    - $729 million in combined net economic benefits (savings to customers after accounting for the cost of the DSM programs)
- DSM programs are directed to residential, low-income residential and non-residential (business) customers, toward the objective of providing a reasonable opportunity for all customers to participate.
- For the 2011/12 reporting period, Black Hills estimates that it achieved annualized energy savings of 18,561 MWh, or 1% of annual sales and 4.7 MW of demand savings.

[1] Combined, PSCo and Black Hills in 2011 sold 30,593,000 MWh of energy and had peak demand of 6,996 MW

DEMAND SIDE MANAGEMENT

ARE CUSTOMERS SAVINGS MONEY AND AT WHAT COST?

- Public Service expects $348.2 million in systems benefits from the 2011 DSM investments, over the life of the investments. This savings results from $63.8 million of spending on efficiency measures by the company combined with participant spending of $58.4 million.
- Public Service spent roughly $107 million or 4% of its retail electric sales of approximately $2.7 billion, on DSM related programs in 2011.
- Black Hills expects $11 million in systems benefits from the 2011 DSM investments, over the life of the investments. This savings results from $6 million of spending on efficiency measures by the company combined with participant spending of $2.8 million.
- Black Hills spent $3.2 million on its electric DSM programs for the July 1, 2011 through June 30, 2012 program year, or roughly 1.6% of its 2011 retail electric sales of approximately $194.5 million.

ELECTRIC AND NATURAL GAS VEHICLES

DO STATE STATUTES ADDRESS REGULATORY ISSUES RELATED TO NATURAL GAS AND ELECTRIC VEHICLES?

- House Bill 12-1258, codified at §40-1-103.3, C.R.S. clarified that persons reselling electricity for use in alternative fuel vehicle charging are not subject to regulation as a public utility (*i.e.,* are not subject to PUC regulation). This legislation also required that electric vehicle fueling retailers must purchase electricity from the utility. This had already addressed this for natural gas fueling. §40-1-103(2)(c)(4), C.R.S.

HAS THE COMMISSION INVESTIGATED ISSUES RELATED TO ELECTRIC AND NATURAL GAS VEHICLES?

- On August 31, 2011, the Commission opened an investigatory docket (Docket No. 11I-704EG) to look into issues related to electric and natural gas vehicles in Colorado. The Commission sought stakeholder input on market growth and policies related to electric vehicles (EVs) and natural gas vehicles (NGVs) in Colorado. **The Commission anticipates closing this docket and issues any conclusions or recommendations early in 2013.**
- The Commission presented questions to stakeholders that covered the following broad topic areas:
    - The current state of the electric and natural gas vehicle markets in Colorado
    - Regulatory issues for deployment of alternative fuel vehicles
    - Rate design for electric vehicle charging and natural gas fueling stations
    - Potential business models for EV charging
- While the Commissions has not issued the final conclusions in its inquiry, we offer the following preliminary thoughts to the legislature:
    - Through its investigation, the Commission concluded that its most likely role in regulating matters related to NGV deployment is setting rates for natural gas sales to fueling stations.
    - The Commission believes that the rate of entrance of EVs (including PHEVs) into Colorado remains unclear. Therefore it is best to let the market mature before taking regulatory action. However, we anticipate that the following are areas where the Commission may provide guidance to investor-owned utilities as the market develops:
        - Electric vehicle integration plans
        - Metering infrastructure
        - Rate design
        - Demand response related to EV charging
    - We note that all of these issues fall directly into the Commission's ordinary course of business of regulating investor-owned utilities.