

Energy and Telecom 101

I. Monopolies and Market-Based Sectors

- Regulated utilities
 - ▶ Comprehensively regulated monopolies, including price regulation
 - ▶ Examples: Electric and natural gas utilities, telecommunications landline
- Market-based companies
 - ▶ Price not regulated; may be subject to other regulation such as siting or consumer protection (e.g., Attorney General's office)
 - ▶ Examples: merchant electric generation, fuel sellers, wireless telecom

II. Regulated Utilities

- Why regulate?
 - ▶ Industries “affected with the public interest”
 - ▶ Natural monopolies that provide a public service
 - ▶ “Regulatory Compact” - utility accepts an obligation to serve in return for the government’s promise to set rates that will compensate it fully for the costs it incurs to meet that obligation
- Who is regulated?
 - ▶ Railroads; electric, natural gas, telecommunications; cable television (not rates); energy efficiency; water and large wastewater companies
- What is regulated?
 - ▶ Retail rates
 - Traditional and alternative
 - Electric affordability program
 - Lifeline
 - ▶ Quality of service, consumer protection
 - ▶ Financial management (ownership; operations; capitalization; mergers)
 - ▶ Inter-company practices (pole attachments; interconnections)
 - ▶ Electric utility planning and supply
 - ▶ Facility siting (see below)
- Who regulates at the State level?
 - ▶ Public Service Board
 - Quasi-judicial board (adjudicative proceedings)
 - Rulemaking authority
 - Note: Act 174 report on access to PSB
 - ▶ Department of Public Service
 - Advocacy
 - Planning: Comprehensive Energy Plan; Electric Energy Plan, and Telecommunications Plan
 - Consumer Affairs and Public Information

III. Energy

- Vermont's energy consumption
 - ▶ Electric energy for light, appliances, air conditioning, etc.: regulated
 - ▶ Thermal energy for space and water heating: unregulated fuels such as fossil fuel products and wood; some regulated fuels - natural gas and electricity
 - ▶ Transportation: mostly unregulated fossil fuel products, some electricity and biofuels

- Electric utility industry and related institutions
 - ▶ Electric distribution utilities (17)
 - GMP (investor-owned)
 - 2 coops
 - 14 municipal departments
 - Relationship to Vermont Public Power Supply Authority
 - ▶ Transmission utility (VELCO and VT Transco)
 - VLITE (VT Low-Income Trust for Electricity)
 - ▶ Generators ("merchant" and utility)
 - ▶ Energy efficiency utilities: Efficiency Vermont (EVT) and BED
 - Resource acquisition
 - System benefits charge
 - ▶ Regional system operator: ISO-New England
 - ▶ Federal regulator: FERC (Federal Energy Regulatory Commission)
 - ▶ Regional Greenhouse Gas Initiative (RGGI)

- Thermal energy sector players and programs
 - ▶ Vermont Gas Systems (regulated distribution and efficiency utility)
 - ▶ Fuel distributors and dealers
 - ▶ Electric utilities (e.g., air source heat pump programs)
 - ▶ Builders
 - ▶ Manufacturers (e.g., space and water heaters)
 - ▶ Building energy standards
 - ▶ Efficiency utility thermal efficiency programs
 - ▶ Low-income weatherization
 - ▶ LIHEAP

- Energy goals, policies, and related items
 - ▶ Greenhouse gas reduction goals
 - ▶ Statutory energy policy and goals
 - ▶ Renewable energy *across all sectors*:
 - CEP goal: 90 percent renewable by 2050
 - 25 by 25 statutory goal (renewable)
 - ▶ Renewable electricity
 - Renewable Energy Standard (includes statutory goals)
 - Net metering program
 - Standard offer program
 - ▶ Building energy
 - Building efficiency goals

- Building energy disclosure report
- ▶ Incentive/loan programs (e.g., Clean Energy Development Fund, VEDA)

IV. Siting

- Electric generation and transmission, natural gas facilities
 - ▶ Overview Section 248
 - ▶ Substantial deference for local and regional plans; affirmative determinations of energy compliance
 - ▶ Process for facilities of “limited size and scope”
 - ▶ Exemption from Act 250 and local land use regulation
- Telecommunications facilities
 - ▶ Option in lieu of Act 250 and local land use regulation
 - ▶ Overview Section 248a
 - ▶ Role of local and regional plans
 - ▶ Process for facilities of “limited size and scope”
 - ▶ 248a option closes July 1, 2017

V. Telecommunications (telephony and Internet; not radio and television)

- Players and programs
 - ▶ Division for Telecommunications and Connectivity
 - Regulatory authority over:
 - telephone service, prices, and service quality
 - cable service (line extensions)
 - wireless telecommunications facilities (siting)
 - July 2015, successor to the VTA, manages and leases 340 miles of fiber; administers grants
 - Broadband mapping
 - 10-year Telecom Plan
 - Action plan
 - ▶ Telecommunications and Connectivity Advisory Board
 - ▶ - 8 members (7 voting)
 - ▶ - Advises Commissioner on telecom matters
 - ▶ Telephony (transmission of voice) providers. Two categories:
 - *Incumbent local exchange carriers* (ILECs) – traditionally rate regulated landline phone companies; operate in service territories
 - *Competitive local exchange carriers* (CLECs) - e.g., mobile wireless; cable digital voice; VoIP)
 - ▶ Broadband (high speed Internet) service; service types and *some examples* of service providers:
 - DSL (ILECs)
 - Cable modem (cable companies)
 - Fiber (ILECs and ECFiber, a communications union district)
 - Wireless (mobile BB – cell companies, VTel; and WISPs, Kingdom Connection, Cloud Alliance)
 - Satellite (HughesNet)

- Broadband over powerlines (BPL)
 - ▶ Communications Act of 1934 (establishment of the FCC)
 - ▶ Telecommunications Act of 1996
 - “Information service” – Title I
 - “Telecommunications service” – Title II common carriers
 - ▶ Federal Universal Service Fund programs
 - Connect America Fund (formerly high-cost support)
 - Lifeline
 - Schools and libraries
 - Rural health care
 - ▶ Vermont Universal Service Fund programs
 - Relay
 - Lifeline
 - E-911
 - Connectivity Fund
 - ▶ Connectivity Fund (45/55)
 - High-Cost Program (ILECs serving rural locations; at least 4/1)
 - Connectivity Initiative (access to at least 10/1 or CAF Phase II)
- State telecom policy (including recent and emerging issues)
 - ▶ State goals (by end of 2024 – 100 Mbps symmetrical)
 - ▶ Telecommunications Plan (3-year major review in 2017)
 - ▶ Developing technologies; competition; deregulation
 - ▶ Alternative regulation
 - FairPoint 2015-2019 Incentive Regulation Plan (basic local exchange service prices are capped; otherwise greater flexibility)
 - 8 independent ILECs – exempt from traditional cost of service regulation (only service quality regulated)
 - ▶ Sale of FairPoint to Consolidated Communications
 - ▶ E-911 System