

**MINUTES**  
**of the**  
**SECOND MEETING**  
**of the**  
**SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE**

**July 19-20, 2010**  
**Room 322, State Capitol**

The second meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Stephen H. Fischmann, chair, at 9:05 a.m. on Monday, July 19, 2010, in Room 322, State Capitol.

**Present**

Sen. Stephen H. Fischmann, Chair  
Rep. Roberto "Bobby" J. Gonzales, Vice Chair  
Rep. Janice E. Arnold-Jones  
Sen. Dede Feldman  
Sen. Phil A. Griego  
Sen. Linda M. Lopez (July 20)  
Rep. Jane E. Powdrell-Culbert  
Rep. Debbie A. Rodella  
Rep. Nick L. Salazar  
Rep. Luciano "Lucky" Varela  
Rep. Richard D. Vigil (July 20)

**Absent**

Sen. Vernon D. Asbill  
Sen. Kent L. Cravens

**Advisory Members**

Sen. Carlos R. Cisneros  
Rep. Karen E. Giannini  
Rep. Ben Lujan  
Sen. Richard C. Martinez  
Rep. Kathy A. McCoy  
Rep. Danice Picraux  
Rep. Don L. Tripp  
Rep. Jeannette O. Wallace

Sen. Mark Boitano  
Sen. William H. Payne  
Sen. John M. Sapien

(Attendance dates are noted for those members not present for the entire meeting.)

**Guest Legislator**

Rep. Nathan P. Cote

**Staff**

Gordon Meeks, Legislative Council Service (LCS)  
Ralph Vincent, LCS  
Jeret Fleetwood, LCS  
Leslie Porter, LCS

## **Guests**

A copy of the guest list is in the original meeting file.

## **Monday, July 19**

Senator Fischmann began the meeting by having members of the committee introduce themselves.

### **Department of Information Technology: Mission, Resources and Structure**

Marlin Mackey, secretary of information technology, provided the committee with an overview of the mission, resources and structure of the Department of Information Technology (DOIT). He began by noting that the department's mission is to provide customers with cost-effective and efficient enterprise products, services and solutions in a secure environment, pointing out that doing so will enable state government to better serve the public. Secretary Mackey went on to explain that the DOIT is the enterprise information technology service provider for almost all of state government, which includes:

- desktop service, including over 20,000 email accounts;
- hosting and storage services, such as mainframes and data storage and backup;
- voice communication services, such as desktop telephony on over 18,000 phones, conference calling and wireless voice and data; and
- data network and internet services.

Secretary Mackey also reviewed the structure of the department, noting that it is currently at about 16 percent vacancy, which has spread the agency fairly thin. He also discussed the agency's budget, pointing out how it has been reduced over the past few fiscal years, and the statewide financial impact of the agency's services. Secretary Mackey indicated that the DOIT has received some grant funding, with several other proposals already submitted.

Secretary Mackey went on to discuss the department's ongoing projects and security issues. He explained that while IT security is always being improved, entities from around the world are constantly trying to breach it. He noted that one attempted security breach involved the Chinese government and the Federal Bureau of Investigation became involved in the case.

Bob Mayer, deputy secretary of enterprise services, DOIT, discussed the department's value enhancement matrix with the committee. He explained that several factors have been identified as having the potential to be more valuable to the department if they are improved. For example, Mr. Mayer noted that improving the delivery of online services or promoting increased interoperability could help the department make much better use of its resources.

Questions and comments included the following:

- health-care-related grants for which the department is applying;
- federal funding available for various health-care-related entities for improved IT;
- improvements to Motor Vehicle Division of the Taxation and Revenue Department systems should be ready in 18 to 24 months;
- interaction between the DOIT and public education is somewhat limited by the autonomy provided to local school districts to develop IT resources on their own;
- expected life cycle of off-the-shelf systems versus homegrown ones;

- software exists to scan networks for several types of hardware but not everything;
- the DOIT has identified aging gear that may need replacement;
- the high number of billing strategies employed by the DOIT and models employed by other states that might work better;
- plans to expand the number of microwave towers so that law enforcement and emergency service agencies have statewide coverage without any dead spots;
- continuing improvements are being made to the secretary of state's information systems;
- reorganization and restructuring issues, including fiscal year 2010 and fiscal year 2011 budgets, the number of executive agencies not served by the DOIT and funding availability for vacant positions; and
- prioritization by the DOIT of those things that cannot be sacrificed by additional budget cuts.

### **Energy, Minerals and Natural Resources Department: Mission, Resources and Structure**

Jim Noel, secretary-designate of the Energy, Minerals and Natural Resources Department (EMNRD), provided the committee with an overview of the mission, resources and structure of the department. He began by providing the committee with an overview of various department divisions, the number of employees in each division and the vacancy rate for each division. Secretary-Designate Noel then discussed each division in more detail, noting the amount of general fund money received for each division, as well as other funding sources. He also discussed some of the special funds used by the department, such as the State Parks Fund, and several of the federal grants to the department.

Jim Perry of both the EMNRD and the Department of Environment discussed some of the reorganization and restructuring issues raised by the committee. He explained that there is still some federal stimulus money that the EMNRD is using to meet federal requirements. Mr. Perry also noted that while the EMNRD does have a number of special funds, most of them are tied to specific uses. He also noted that while most of the EMNRD's vacancies are on the books as funded, there simply is not enough money to hire anyone. Mr. Perry also pointed out that while the number of full-time-equivalents in the EMNRD is currently the same as in 2002, there are significantly more vacancies.

Questions and comments included the following:

- contemplation by the Energy Conservation and Management Division of the EMNRD of nuclear power as a means of better managing energy demands;
- the department is currently unable to perform some of its required duties, making further budget reductions particularly difficult;
- development by the department of a list of those duties that must be fulfilled, those that it is currently not fulfilling and the consequences of not fulfilling those duties;
- lack of notification to people who made campsite reservations at state parks, only to find that the park had been closed due to lack of resources;
- federal funding for forest restoration and watershed thinning;
- bond issues regarding the Youth Conservation Corps; and
- the Youth Conservation Corps project prioritization list.

### **Public Regulation Commission: Mission, Resources and Structure**

Public Regulation Commissioners Jerome Block, Theresa Becenti-Aguilar, David King and Jason Marks introduced themselves to the committee and provided it with an overview of the Public Regulation Commission's (PRC's) duties, divisions and bureaus. They explained that the PRC regulates public utility companies, telecommunications companies, motor carriers, insurance companies and insurance agents operating in New Mexico. The commissioners went on to discuss the PRC's operating budget, recent accomplishments and the number of cases they reviewed over the past year. They also described the mission and recent accomplishments of the various divisions of the commission.

Roy Stephenson, director of the PRC's Utility Division, discussed utility rates in more depth. He noted that utility rates, and utility companies themselves, have seen unprecedented change over the past 10 years. For example, he pointed out that in 1999, very few people had cellular phones, but now their use has grown to replace landlines in many households. Mr. Stephenson also indicated that there have been wild price fluctuations in electricity rates recently, noting that renewable energy has played a large role in those fluctuations. He also noted that renewable energy is currently rather expensive to produce, but that the cost of not developing it will be much larger.

Commissioner Marks discussed the duties of the PRC in more depth. He explained that insurance accounts for a significant portion of the commission's workload, but that statutory limitations on the commission's authority make it difficult to function properly. For example, Commissioner Marks explained that the commission is unable to hear appeals to decisions made by the superintendent of insurance. He suggested that the legislature provide the commission with the authority or consider creating a separate agency to regulate insurance.

Commissioner Marks went on to note that some of the commission's other responsibilities, such as transportation, corporations and the state fire marshal, that take time away from the commission's other pursuits, particularly utilities.

Questions and comments included the following:

- potential areas of regulation that the legislature could reassign to give the PRC more time to focus on utilities;
- problems with rules concerning ex parte communications by the commission;
- development of new software to help the PRC regulate corporations;
- other government entities responsible for the regulation of utilities;
- the desire for transparency versus the sheer complexity of utility rate case hearings;
- the possibility of the PRC publishing executive summaries of rate hearings;
- PRC regulation of the propane industry;
- New Mexico's role in western energy transmission issues;
- regulation of telecommunications companies;
- that federal preemption may not allow New Mexico to collect taxes from some telecommunications companies; and
- competition between wireless phone companies and traditional phone companies.

### **Energy Efficiency**

Tammy Fiebelkorn of the Southwest Energy Efficiency Project provided the committee with an overview of energy efficiency programs. She explained that energy efficiency helps

reduce greenhouse gas emissions without costing utilities more in infrastructure costs. She explained that there are two main sources of energy efficiency in investor-owned utilities: demand side management programs and ratemaking. For example, Ms. Fiebelkorn noted that utility companies are often reluctant to encourage energy efficiency among their customers because customers using energy efficiently tend to use less, which eats into the utility company's profits. However, she explained that using ratemaking to move away from traditional pricing models can help companies continue to profit while still encouraging customers to use their energy efficiently. Ms. Fiebelkorn went on to discuss energy efficiency programs in other types of utilities, such as rural electric cooperatives, noting that programs among cooperatives vary widely. She also discussed federal American Reinvestment and Recovery Act of 2009 funding that has been made available to state and local governments to encourage energy efficiency programs. Finally, Ms. Fiebelkorn discussed energy efficiency in new and existing buildings.

Ron Darnell, vice president of regulatory affairs for the Public Service Company of New Mexico (PNM), discussed energy efficiency from a utility's standpoint. He began by noting that PNM does offer several residential and commercial energy efficiency programs. He said that energy efficiency is the least cost resource for the utility, but he went on to explain that traditional utility regulation provides strong disincentives for utilities to promote energy efficiency. He pointed out that the Efficient Use of Energy Act attempted to solve the problem, and that PNM customers have benefited, but the company's revenues have continued to fall. Mr. Darnell emphasized that energy efficiency and traditional regulation models do not add up to a sustainable business model. He also explained that because much of the "low-hanging fruit", such as converting to compact fluorescent light bulbs, in energy efficiency has been harvested, the cost of acquiring energy efficiency resources will increase.

John Curl of the Coalition for Clean Affordable Energy echoed the comments of both Ms. Fiebelkorn and Mr. Darnell.

Questions and comments included the following:

- how New Mexico's PRC rate structure compares to other states;
- the negative impact of energy efficiency programs on profit margins;
- whether New Mexico's business climate makes increasing energy efficiency more difficult than it needs to be;
- whether inverted block rate structures make more sense to both consumers and utilities;
- new power plants usually come with utility rate increases to help offset the cost;
- difficulty in fairly dividing the benefits of energy efficiency between consumers and utilities; and
- how realistic it is to consider that traditional rate structures will be changed.

### **Decoupling Ratesetting from Generation**

Commissioner Marks provided the committee with a presentation on rate decoupling from generation.

Mr. Darnell noted that rate regulation creates disincentives to utility investments in energy efficiency and suggested that decoupling ratesetting from generation is a solution. He explained that decoupling works to encourage energy efficiency by eliminating the link between

kilowatt per hour sales and revenues. Further, Mr. Darnell indicated that decoupling would allow a utility to adjust its rates to recover revenues approved by a regulatory body, in this case the PRC, regardless of the utility company's sales level. To better illustrate, Mr. Darnell provided the committee with a rate design example that showed how allowing straight fixed/variable pricing (a decoupling model) would likely cost customers less than variable pricing (the current model) while still ensuring that the utility company would cover its costs and make a reasonable profit. However, he cautioned that consumers who continue to conserve energy do cause problems for the rate case model presented.

Mr. Darnell went on to note that although decoupling does remove the disincentive for utilities to pursue energy efficiency, avoids more frequent rate cases and provides justification for inverted block rates, customers who reduce their consumption see decoupling as a penalty. He went on to note that 11 states, plus the District of Columbia, have decoupled electricity service.

Questions and comments included the following:

- the average electricity bill would likely contain a rider under decoupling, making it look different from today's bill;
- the tendency of utilities to pass their costs on to customers through surcharges;
- the potential for decoupling to improve the electric utility industry, even though it is not the perfect solution; and
- legislation passed in 2008 that laid the foundation for decoupling.

The committee recessed at 5:00 p.m.

## **Tuesday, July 20**

### **State Renewable Portfolio Standards**

Glen Anderson with the National Conference of State Legislatures (NCSL) described to the committee how renewable portfolio standards (RPS) require electricity suppliers to provide a minimum percentage of retail electricity from renewable energy sources. If utilities cannot meet the standard, they are required to acquire renewable energy credits or alternative compliance payments. No two RPS programs are alike. He said 29 states have RPS standards. Some have set-asides for solar or other special renewables. Sixty-four bills dealing with RPS are pending in 25 states this year. Most states are reaching 90 percent to 100 percent of their targets. Wind dominates the renewable portfolios so far. Sixteen states and Washington, D.C., have solar distributed generation provisions in their RPS policies. Few states have required alternative compliance payments. He told the committee that the solar set-asides have water problems in some western states. He said that the slow progress in accomplishing California's RPS goals is due to "NIMBYism" (the not-in-my-backyard kind of opposition to any kind of development that changes the landscape or the community host). There is some evidence that renewable energy options are driving down the cost of conventional energy (provided by natural gas) in Texas. Wind provided 42 percent of new capacity nationwide in 2008. New Jersey has a solar set-aside, which is the longest. Much of it is rooftop instead of utility scale. There are lawsuits that challenge RPS provisions that require in-state renewable preference. He then summarized property assessed clean energy (PACE) laws, which 22 states have enacted. PACE laws are special assessment districts for solar installation investments.

The committee asked questions and discussed the following:

- renewable credit exchange (western regional electric generation information system) mechanism;
- cost recovery mechanisms;
- alternative compliance fees in other states;
- New Mexico utilities purchasing renewables from out of state;
- status of the solar facility in Santa Teresa;
- Fannie Mae and Freddie Mac opposition to tax assessment financing due to primary liens on homes;
- the concept looks good in a glossy brochure, but the details bog the programs down;
- some states are trying to set up a central finance system to supersede the county level bonding methods;
- technical assistance outreach by the state to communities;
- advances in self-sustaining technology;
- New Mexico should be a leader in research;
- the potential role of the New Mexico Finance Authority;
- need for state legislators to push their local officials to implement it;
- California Attorney General Jerry Brown has filed suit against Fannie Mae and Freddie Mac; and
- the number of communities without electricity.

During this discussion, the committee adopted a motion by Senator Feldman and seconded by Representative Vigil (opposed by Representatives Arnold-Jones and Powdrell-Culbert) to send a letter requesting New Mexico Attorney General Gary King to join with California in its lawsuit; to send a letter to the New Mexico congressional delegation asking for Congress to overrule action by Fannie Mae and Freddie Mac; and to send a letter to the NCSL Agriculture and Energy Committee.

### **Technology Enterprise Development in New Mexico**

David Blivin, managing partner, Cottonwood Technology Fund, told the committee that there were a record number of start-up businesses last year, which is not unusual during recessions, when people who lose their jobs start their own businesses. He said that during recessions, older companies experience job losses, but start-ups create more new jobs than old companies lose. New Mexico needs diversification, he said, because it is too reliant on oil and gas for revenue and business. Now is the time for New Mexico to support alternative energy start-ups. He said that the state's advantages favor enterprises associated with film, supercomputer technology, the Spaceport and the green grid. He described the activities and priorities of the New Mexico Technology Commercialization Council (solar and algae energy, smart grid, oil and gas, computing, nuclear power, wind energy, microsystems and nanosystems, biomedical, biofuels and sensors). The council is advocating for a \$100 million investment over 10 years spent holistically for work force training, tax credits, research and investment in start-ups. He said that New Mexico needs to get serious. Industry recruitment does matter relative to creating a supportive ecosystem, but there is a more crucial need for long-term commitment to support the growth of local enterprises.

The committee asked questions and discussed the following:

- the history of similar proposals;

- development and commercialization is the stage where New Mexico has failed;
- intellectual property issues;
- at some point, companies that the state has invested in move out of state;
- "management willing to be here";
- the need for seed stage capital;
- transportation infrastructure; and
- the state has been burned by a number of investments and policies and these bad experiences have established a "bad taste" in policymakers' mouths.

### **Kit Carson Electric Cooperative Solar Energy Status**

Luis Reyes, chief executive officer of Kit Carson Electric Cooperative, gave the committee a quick history of the cooperative and its current efforts to diversify its energy portfolio, with an emphasis on solar development. He said the cooperative is headquartered in Taos and was incorporated in 1944. The cooperative operates electric, telecommunications and propane subsidiaries and has a third-party call center. It has a customer base of 28,185 electric, 3,533 propane and 1,621 telecommunications customers, for a total of 33,339 customers. The cooperative serves Taos, Rio Arriba, Colfax, Santa Fe, Union, San Juan, McKinley, Sierra, Hidalgo and Cibola counties in its various services and had revenues in 2009 totaling \$39,702,356. He told the committee that the cooperative's goals for solar energy are to:

- enhance and attain RPS standards and targets;
- develop local distribution generation sources;
- encourage and support economic development;
- reduce the carbon footprint in the event of climate change legislation;
- create a local green economy;
- research and provide funding resource information for ways to finance solar applications for all those who wish to use solar in their homes and businesses;
- develop a solar energy work force;
- explore technology to advance solar availability, including rooftop, solar array, distributed generation, interconnection and net metering applications;
- enhance electric system deficiencies or weaknesses such as enhanced voltage profile, reduced line loss, increased capacity support and stabilized power supply; and
- defer capital projects.

He told the committee that Kit Carson Electric Cooperative was allocated \$5 million in 1996 through clean renewable energy bonds, which were used to install solar arrays at the University of New Mexico (UNM)-Taos campus, over the cooperative's parking lot, at Northern New Mexico College and at KTAO radio station. He described forthcoming solar community array projects in which members may lease portions of the array within their economic means and receive a proportional credit on their bill. These projects will be built at Taos Charter School and Holy Cross Hospital. He also summarized the cooperative's net-metering program.

The committee asked questions and discussed the following:

- uniqueness of Kit Carson's program (Colorado and Arizona examples);
- partnering with members;
- consequences of failures;
- the cooperative's other businesses (telecommunications and propane);
- PRC regulatory authority over Kit Carson diverse businesses;

- internet provider business;
- interoperability with 911 and other public safety communications;
- acreage requirements for power at the hospital;
- Kit Carson's rates;
- integration with existing distribution lines;
- compliments to Mr. Reyes and the board;
- potential visit to Kit Carson next year for a committee meeting;
- potential for getting into the natural gas business;
- cooperation with Los Alamos National Laboratory and Northern New Mexico College;
- the Legislative Finance Committee will meet in Taos in August at UNM-Taos;
- the scale of projects; and
- the tri-state 30-megawatt solar facility in Cimarron and 51-megawatt wind project.

### **Supercomputing (Encanto) Facility Status**

Lenny Martinez, chief operating officer for Encanto Supercomputer, and Gina Tanner, Economic Development Department, described the New Mexico Computing Applications Center. They said that the digital industry lends itself to rural areas and to communities of creative people. Examples they gave of enterprises using the supercomputer are: Cerelink, which signed a contract with DreamWorks; DreamWorks' multi-year contract; and the DigitalMedia Project. They said that the supercomputer's cloud computing capacity is a benefit that has attracted clients. Intel is buying a large package of time, they said. Cerelink is looking at biomedical and energy applications. They said that additional capital is needed for next year for additional computing ability to support the digital media industry. Sony is talking about potential satellite operations based in the state. Some customers want to do this work remotely, using gateways. They did not start out thinking about gateways in this way, but this market has developed rapidly. The energy market includes green grid and smart grid proposals, which are in the pipeline now. The Japanese are looking to make an investment. The National Center for Genomic Research is also interested. They said the supercomputer has been in the news lately due to its model of the Deepwater Horizon well oil dispersal.

The gateways/education systems has far exceeded expectations. There are 44 institutions of higher education in New Mexico, and the 20 gateway locations enable systemic education throughout the state. The digital media industry jumped on board first to use the gateway system for virtual auditions. Monterey would like its own gateway, now, as a result of a visit to New Mexico to see the supercomputer. This is a tremendous opportunity for rural development, they told the committee.

The loss of operational funding in fiscal year 2011 forced the transition to self-sufficiency sooner than expected. As a result of aggressive marketing, Intel is moving its energy research center to New Mexico and film companies are interested in virtual auditions. This is a critical year for this transition to self-sufficiency.

The committee asked questions and discussed the following:

- use of gateways in the State Capitol;
- use of gateways today;
- free access to the schools;

- operational costs are \$2 million per year;
- the relationship between the supercomputer and the gateways (?);
- Intel's (host) restrictions on equipment usage;
- between \$300,000 and \$350,000 in actual revenue for 2009;
- impatience with progress;
- the contract with "NEDO" (Japanese smart grid consortium);
- desktop supercomputers competing with Encanto's 14,000 CPUs;
- Northern New Mexico College gateway site;
- telemedicine applications;
- public school system participation with and access to the supercomputer;
- use of the supercomputer for researching tax code costs and benefits;
- the DOIT owns the supercomputer;
- asset depreciation and cash flow against the Computer Applications Center's nonprofit contract operator;
- rate structure and destination of revenue for services;
- the long-term plan to replace the supercomputer;
- the speed of the supercomputer and the number of upgrades since its acquisition;
- how much of capacity of the computer is being used;
- universities' use of the supercomputer;
- the number of state agencies to which the DOIT provides free computers;
- Intel is buying 10 percent of the capacity of the machine;
- term of the contract between the state and the Computer Applications Center;
- the value of in-kind services (Intel's \$20 million investment to upgrade the floor) and Sandia system technical support;
- memorandum of understanding with the College of Santa Fe; and
- broadband infrastructure.

### **Inverted Block Rate Structure**

Mr. Darnell defined inverted block rates as a cost structure for energy in which each additional block or unit of energy above a given level is charged at a higher rate than preceding blocks. He described PNM's proposed inverted block rates and said that the intent is to promote conservation but not economic efficiency. This proposal will reduce rates in the lower usage blocks. He said that this proposal recognizes that the future cost of generation is more expensive than today's cost of generation. Inverted block rates work with decoupling, allowing for greater cost recovery in the higher blocks, which is a greater reward for responding to the price signal. Decoupling surcharges can be applied only to the higher blocks while decoupling refunds are applied only to the lower blocks. He said that without decoupling, the last block cannot be priced at marginal cost, which would mitigate the conservation price signal. He said that it does promote conservation but it does not support economic efficiency.

Ms. Fiebelkorn and Mr. Curl said that they support inverted or inclining block rates.

The committee asked questions and discussed the following:

- the complexity of rate cases and PRC actions;
- quality of the PRC web site;
- why decoupling and inverted block rates should work in tandem;
- a common sense explanation of these terms so that customers can understand it; and

- more frequent rate case intervals.

The minutes of the June meeting were approved.

The committee adjourned at 3:30 p.m.