

# SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

2022 INTERIM FINAL REPORT

LEGISLATIVE COUNCIL SERVICE 411 STATE CAPITOL SANTA FE, NEW MEXICO 87501 (505) 986-4600 WWW.NMLEGIS.GOV

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# INTERIM SUMMARY

# Science, Technology and Telecommunications Committee 2022 Interim Summary

The Science, Technology and Telecommunications Committee held six meetings during the 2022 interim. In addition to the June and November meetings, held at the State Capitol in Santa Fe, the committee held meetings at the University of New Mexico in Albuquerque, the New Mexico Institute of Mining and Technology in Socorro, the Career and Technical Education Center of Hobbs (CTECH) in Hobbs and San Juan College in Farmington. The committee also took tours of Spaceport America in Upham near Truth or Consequences, the Urenco uranium enrichment facility outside of Eunice and the CTECH.

Presentations to the committee generally fell into the following six categories:

1. <u>Recent developments in science and technology to address, or use as a foundation for</u> <u>addressing, a wide variety of issues</u>, such as: 1) changing climate conditions and water availability in New Mexico; 2) the deployment of alternative or renewable energy generation and microgrid installations on tribal lands; 3) law enforcement; 4) emergency response; 5) cybersecurity in general and specifically for state agencies and state research institutions; and 6) national defense and military deployments;

2. <u>Development of science, technology, engineering and mathematics (STEM) education</u> and technical training. In this category, the committee continued its long-standing interest in learning more about the recruitment of students into STEM-based careers. Presentations included what have become traditional reports on the recruitment of women and underrepresented student cadres into more advanced technological and science careers. The meeting in Hobbs included a tour of the CTECH, where committee members learned about a successful program to grow the technical-vocational segment of the state's workforce;

3. <u>Oversight of state efforts and private sector initiatives regarding telecommunications</u> <u>and broadband development.</u> In this category, the committee heard from several small- and medium-sized telecommunications providers about the Department of Information Technology's (DoIT's) public safety radio communications platform implementing a digital trunked radio system and received several updates from the department's Office of Broadband Access and Expansion;

4. <u>Cybersecurity concerns and efforts of state agencies and educational institutions.</u> In this category, the committee heard a number of reports regarding the cybersecurity threat environment facing state agencies, public school districts and universities and efforts to create programs to respond those threats;

5. <u>Information technology project oversight</u>. This is a perennial function of the committee. However, this year, in addition to the standard update reports from the DoIT, the committee requested and received in-depth reports from the Legislative Finance Committee and other agency staff regarding the status of the Children, Youth and Families Department's Comprehensive Child Welfare Information System modernization project and the multi-agency

Medicaid Management Information System replacement project; and

6. <u>Development of the science and technology economic sector in New Mexico.</u> An ongoing topic of interest for the committee, presentations about economic development based on science and technology included updates from Sandia National Laboratories and Los Alamos National Laboratory as a foundation. This year, the committee also heard presentations from the University of New Mexico's Rainforest Innovations program, the Quantum New Mexico research consortium, New Mexico IDEA, the Permian Strategic Partnership, a robotics firm, Team 1st Technologies, the New Mexico Technology Council and the New Mexico Bioscience Authority and received an update on the technology readiness gross receipts tax credit initiative.

# WORK PLAN AND MEETING SCHEDULE

#### 2022 APPROVED WORK PLAN AND MEETING SCHEDULE for the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

#### Members

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Sen. William F. Burt Rep. Joy Garratt Rep. Jason C. Harper

#### **Advisory Members**

Rep. Eliseo Lee Alcon Sen. Craig W. Brandt Rep. Christine Chandler Rep. Gail Chasey Rep. Kelly K. Fajardo Sen. Leo Jaramillo Sen. Mark Moores Sen. Shannon D. Pinto Sen. Harold Pope Rep. Larry R. Scott Sen. William P. Soules

Sen. Bill B. O'Neill Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez Rep. Andrea Romero Rep. Linda Serrato

#### Work Plan

The Science, Technology and Telecommunications Committee was created by the New Mexico Legislative Council on April 26, 2022. The committee proposes to hear testimony regarding:

1. broadband development progress and challenges for various sectors of the state, including presentations from:

A. the Office of Broadband Access and Expansion, including analysis of implementation by Legislative Finance Committee staff and the governor's broadband advisor;

B. the Connect New Mexico Council regarding the broadband grant program;

C. municipal and county governments regarding broadband challenges and status;

D. institutions of higher education, the Council of University Presidents, the New Mexico Association of Community Colleges and New Mexico Independent Community Colleges;

E. the Public Education Department, including with regard to technology deficits in rural schools;

F. the Higher Education Department;

G. the New Mexico Association of REALTORS;

H. the New Mexico Hospital Association;

I. various law enforcement agencies;

J. the Public School Capital Outlay Council on the development of a statewide education technology infrastructure network pursuant to Laws 2021, Chapter 49; and

K. tribal governments;

2. telemedicine: how to make it an effective tool throughout the state and the technology required;

3. science, technology, engineering and mathematics (STEM) education and the potential to develop STEM education hubs at the high school level, including after-school robotics clubs or teams;

4. the information technology (IT) industry trend known as "Web3", which includes decentralized applications to form cryptoeconomic protocols based on blockchains or decentralized networks of peer-to-peer servers, and what Web3 may mean for state agencies and educational institutions;

5. recruitment of women and other underrepresented members of the population into coding camps and other precursor training for technology-based jobs;

6. energy production and transmission, market opportunities, emerging technologies and evolving best practices, including:

A. technologies and practices used in oil and gas production to reduce greenhouse gas emissions and other industry actions to combat climate change;

B. innovations in electric power generation from the use of in-system water pressure within water utilities or through the use of thermochemical or pyrolysis reactions to recycle plastic wastes;

C. hydrogen technology and carbon capture; and

D. emerging geothermal and subterranean heat exchange technology;

7. the proposed Holtec International spent nuclear fuel rod storage facility between Carlsbad and Hobbs;

8. general economic development initiatives related to science, technology and telecommunications, including a status update regarding the development of the New Mexico Innovation Triangle;

9. intellectual property development at research institutions in New Mexico, including new and emerging technology and entrepreneurial programs at the state's universities, and an examination of the various funds established by the state for research and development;

10. the status of state IT projects, including the Department of Information Technology's and the Legislative Finance Committee's reports on program management and presentations from implementing agencies for large IT projects;

11. space industry development and opportunities;

12. telecommunications regulation in New Mexico;

13. updates on Sandia National Laboratories and Los Alamos National Laboratory;

14. modern technology and methods in farming and nutrient enhancement in food products;

15. updates on public safety programs, including E911 and a mobile public radio system;

16. the development of banking technology and how cryptocurrencies affect the cannabis industry;

17. the Water Data Act and technology aimed at improving water efficiency and management to mitigate water scarcity;

18. state planning for cybersecurity;

19. internet-based misinformation and radicalization efforts and approaches that law enforcement may be able to employ to identify and prevent violence instigated by those efforts, including employment of artificial intelligence;

20. reforestation and fire recovery science;

21. the activities of NM IDEA and the New Mexico Technology Council; and

22. successes in career technical education.

# Science, Technology and Telecommunications Committee 2022 Approved Meeting Schedule

Date June 2	Location Santa Fe
July 7-8	Albuquerque
August 8-9	Socorro/Truth or Consequences
September 1-2	Hobbs
October 27-28	Farmington
November 16-17	Santa Fe

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AGENDAS AND MINUTES

# TENTATIVE AGENDA for the FIRST MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

# June 2, 2022 State Capitol, Room 309 Santa Fe

# Thursday, June 2

10:00 a.m.		<b>Call to Order and Introductions</b> —Senator Michael Padilla, Chair
10:15 a.m.	(1)	2022 Proposed Work Plan and Meeting Schedule
		-Mark Edwards, Legislative Council Service

12:00 noon Adjourn

# MINUTES of the FIRST MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

### June 2, 2022 State Capitol, Room 309 Santa Fe

The first meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Michael Padilla, chair, on June 2, 2022 at 10:05 a.m. in Room 309 of the State Capitol in Santa Fe.

#### Present

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Rep. Joy Garratt Sen. Shannon D. Pinto Sen. Harold Pope Rep. Larry R. Scott Sen. William P. Soules

#### Absent

Sen. William F. Burt Rep. Jason C. Harper Sen. Mark Moores

#### **Advisory Members**

Rep. Eliseo Lee Alcon Sen. Craig W. Brandt Rep. Gail Chasey Rep. Kelly K. Fajardo Sen. Bill B. O'Neill Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez Rep. Andrea Romero Rep. Christine Chandler Sen. Leo Jaramillo Rep. Linda Serrato

#### Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Sabina Gaynor, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS

#### Guests

The guest list is in the meeting file.

#### Handouts

Handouts and other written testimony are in the meeting file and posted on the legislature's website.

#### **References to Webcast**

The time reference noted next to each agenda item in this document is cross-referenced to the webcast of the committee meeting, which can be found at <u>www.nmlegis.gov</u>, under the "Webcast" tab. The presentations made and committee discussions for agenda items can be found on the recorded webcast for this meeting.

#### Thursday, June 2

#### Welcome and Introductions (10:05 a.m.)

Senator Padilla welcomed the committee, and members of the committee, staff and audience introduced themselves.

#### 2022 Proposed Work Plan and Meeting Schedule (10:19 a.m.)

Mr. Edwards presented the proposed work plan and meeting schedule for the 2022 interim. After discussion, the members voted to approve the proposed work plan and meeting schedule as amended. The document can be found here:

https://www.nmlegis.gov/handouts/STTC%20060222%20Item%201%20STTCproposed%20wor k%20plan.22.pdf.

#### Adjournment

There being no further business before the committee, the meeting adjourned at 11:06 a.m.

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# TENTATIVE AGENDA for the SECOND MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

# July 7-8, 2022 Science & Technology Park Rotunda University of New Mexico 801 University Boulevard SE, Park North Albuquerque

# Thursday, July 7

10:00 a.m.		Call to Order and Introductions —Senator Michael Padilla, Chair
10:15 a.m.	(1)	<ul> <li>Welcome and University of New Mexico (UNM) Status Update</li> <li>—James Holloway, Provost and Executive Vice President for Academic Affairs, and Professor, Department of Nuclear Engineering, UNM</li> </ul>
11:00 a.m.	(2)	<b>Department of Information Technology (DoIT): Looking at a State</b> <u>Agency Approach for Cybersecurity</u> —Raja Sambandam, State Chief Information Security Officer, DoIT
12:00 noon		Lunch
1:00 p.m.	(3)	<ul> <li>Cybersecurity Planning and Risk Management in Public Schools</li> <li>—Richard Bowman, Ph.D., Chief Information and Strategy Officer, Albuquerque Public Schools</li> <li>—Grant Banash, Poms and Associates; Technology Consultant, New Mexico Public Schools Insurance Authority</li> <li>—Demetrius Brandon, Chief Information Security Officer, Public Education Department</li> <li>—Ovidiu Viorica, Program Manager, Broadband and Technology, Public School Facilities Authority</li> </ul>
2:30 p.m.	(4)	<ul> <li>UNM Rainforest Innovations (UNMRI)</li> <li>—Lisa Kuuttila, Chief Executive Officer and Chief Economic Development Officer, UNMRI</li> <li>—Barr Zulevi, Ph.D., President and Chief Technical Officer, Pajarito Powder</li> <li>—James Freyer, Chief Scientific Officer, BennuBio, Inc.</li> <li>—Alexander Hafez, Ph.D., President, Circular Genomics</li> </ul>

3:30 p.m.	(5)	Water Challenges — Resilience to an Increasingly Arid and VariableClimate—Jennifer Rudgers, Ph.D., Regents Professor, Department of Biology,
		<ul> <li>Johnstein Rudgers, Fil.D., Regents Froessor, Department of Biology, UNM</li> <li>Marcy Litvak, Ph.D., Professor, Department of Biology, UNM</li> </ul>
4:30 p.m.		Recess
Friday, July	<u>8</u>	
9:00 a.m.	(6)	<ul> <li>Create New Mexico: Expanding Education Through Digital Learning</li> <li>—Katherine Crociata, Government Relations Consultant, Adobe Systems Inc.</li> <li>—Vanessa Alarid, Consultant, Adobe Systems Inc.</li> </ul>
9:30 a.m.	(7)	<ul> <li>What is Quantum Information and How Will It Impact New Mexico, the United States and the World</li> <li>—Andrew J. Landahl, Ph.D., Distinguished Research and Development Scientist, Sandia National Laboratories; Research Professor, Department of Physics and Astronomy, UNM</li> </ul>
10:00 a.m.	(8)	<ul> <li>Quantum New Mexico</li> <li>—Rick Muller, Ph.D., Senior Manager, Advanced Microsystems, Sandia National Laboratories</li> <li>—Ivan Deutsch, Ph.D., Regents Professor, and Director, Center for Quantum Information and Control, UNM</li> </ul>
11:00 a.m.	(9)	Advanced Manufacturing: Energy Power Management for Renewables and Recruitment of Industry —Ganesh "Gunny" Balakrishnan, Ph.D., Director, New Mexico EPSCoR; Professor and Associate Chair, Department of Electrical and Computer Engineering, UNM
12:00 noon		Public Comment
12:30 p.m.		Adjourn

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

### July 7-8, 2022 Science & Technology Park Rotunda University of New Mexico 801 University Boulevard SE, Park North Albuquerque

The second meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Michael Padilla, chair, on July 7, 2022 at 10:07 a.m. at the University of New Mexico (UNM) Science & Technology Park Rotunda in Albuquerque.

#### Present

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Rep. Joy Garratt Sen. Shannon D. Pinto Sen. Harold Pope Rep. Larry R. Scott

#### Absent

Sen. William F. Burt Rep. Jason C. Harper Sen. Mark Moores Sen. William P. Soules

#### **Advisory Members**

Rep. Eliseo Lee Alcon (7/7) Sen. Craig W. Brandt Rep. Gail Chasey Rep. Kelly K. Fajardo Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez

#### **Guest Legislator**

Sen. Linda M. Lopez (7/7)

Sen. Leo Jaramillo Sen. Bill B. O'Neill Rep. Andrea Romero Rep. Linda Serrato

Rep. Christine Chandler

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

#### Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Sabina Gaynor, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS Hunter Thomas, Intern, LCS

#### Guests

The guest list is in the meeting file.

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#### Thursday, July 7

#### Welcome and Introductions (10:07 a.m.)

Senator Padilla welcomed the committee, and members of the committee, staff and the audience introduced themselves.

#### Welcome and UNM Status Update (10:13 a.m.)

Dr. James Holloway, provost and executive vice president for academic affairs, and professor, Department of Nuclear Engineering, UNM, discussed the UNM 2040 vision, mission, values and goals of the university. Dr. Holloway also discussed the university's research activities and explained the Grand Challenges program that was recently launched at UNM. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%201%20Holloway%20Welcom e%20and%20Overview.pdf.

# Department of Information Technology (DoIT): Looking at a State Agency Approach for Cybersecurity (11:35 a.m.)

Raja Sambandam, state chief information security officer, DoIT, and Daniel Garcia, project manager, DoIT, discussed the department's work in establishing a state government roadmap for the cybersecurity program. Mr. Sambandam reviewed the accomplishments of the cybersecurity program and described in detail the roadmap through the next four fiscal years. This roadmap includes a security operations center to be established within the DoIT.

#### Cybersecurity Planning and Risk Management in Public Schools (1:11 p.m.)

Dr. Richard Bowman, chief information and strategy officer, Albuquerque Public Schools (APS); Grant Banash, Poms and Associates, and technology consultant, Public School Insurance Authority; Demetrius Brandon, chief information security officer, Public Education Department; and Ovidiu Viorica, program manager, Broadband and Technology, Public School Facilities Authority (PSFA), discussed the current plan for cybersecurity in New Mexico public schools. Mr. Brandon described the New Mexico K-12 Task Force's strategic cybersecurity goals for developing partnerships to create policies and provide guidance in the best practices for safeguarding public schools against cybersecurity threats. Mr. Viorica discussed the PSFA project to create a statewide education broadband network and the provision of expert network and cybersecurity services for this network. Mr. Viorica also discussed a preliminary four-year budget to support the K-12 network and cybersecurity program. Mr. Banash discussed how Poms and Associates has assisted the Public School Insurance Authority with its initiatives to assess cybersecurity issues for school districts. Dr. Bowman discussed the issues that APS has dealt with in regard to cybersecurity, and he urged immediate investment and action.

#### UNM Rainforest Innovations (UNMRI) (2:31 p.m.)

Lisa Kuuttila, chief executive officer and chief economic development officer, UNMRI, described the technology transfer activities that UNMRI is involved in and reported on the current status of UNMRI. Thomas Stephenson, co-founder, chief executive officer and board chair, Pajarito Powder; James Freyer, chief scientific officer, BennuBio, Inc.; and Dr. Alexander Hafez, president, Circular Genomics, assisted Ms. Kuuttila in describing specific commercialization projects with which UNMRI has been involved. Dr. Stephenson described the start-up company Pajarito Powder, which focuses on non-platinum fuel cell catalysts. Mr. Freyer described the start-up company BennuBio, Inc. and its work developing a flow cytometer, known as the Velocyt. Dr. Hafez described his work developing the start-up company Circular Genomics, which uses RNA-based diagnostic assay to assist physicians in treating major depressive disorders. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%204%20UNM%20Rain%20For est%20Innovations%20Overview%20(Kuuttila).pdf.

#### Water Challenges — Resilience to an Increasingly Arid and Variable Climate (3:31 p.m.)

Dr. Jennifer Rudgers, regents' professor, Department of Biology, UNM, and Dr. Marcy Litvak, professor, Department of Biology, UNM, discussed the effects of climate change on New Mexico and the role that UNM is playing with research programs studying sustainable water issues. One of the UNM Grand Challenges is focused on sustainable water resources, and Dr. Rudgers and Dr. Litvak discussed the goals and activities of this challenge program. Dr. Rudgers described the Sevilleta Long-Term Ecological Research Program, which studies changes to the climate, the Bosque Ecosystem Monitoring Program, which studies the management of the Rio Grande ecosystem and the Metals Exposure and Toxicity Assessment on Tribal Lands in the Southwest Superfund Research Program Center, which studies the environmental and health impacts of mine waste. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%205%20Water%20Challenges%20Litvak%20Rudgers.pdf.

#### Recess

The meeting recessed at 4:23 p.m.

#### Friday, July 8

#### Reconvene

Senator Padilla reconvened the meeting at 9:09 a.m.

#### **Create New Mexico: Expanding Education Through Digital Learning (9:09 a.m.)**

Katherine Crociata, government relations consultant, Adobe Systems Inc., and Vanessa Alarid, consultant, Adobe Systems Inc., introduced the Create New Mexico program that uses Adobe's digital tools, in particular Adobe Creative Cloud, to assist teachers in teaching and students in learning. Funding was provided by the legislature for the Public Education Department to build the Create New Mexico program in fiscal year 2023. To continue the program, the department will need \$1.42 million annually. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%206%20Create%20NM%20ST EM.pdf.

#### Approval of Minutes (9:40 a.m.)

The committee approved the minutes of the June 2, 2022 meeting.

# What is Quantum Information and How Will It Impact New Mexico, the United States and the World (10:04 a.m.)

Dr. Andrew J. Landahl, distinguished research and development scientist, Sandia National Laboratories, and research professor, Department of Physics and Astronomy, UNM, provided an overview of quantum information and described some of the research projects in New Mexico on quantum technologies.

#### Quantum New Mexico (10:36 a.m.)

Dr. Rick Muller, senior manager, Advanced Microsystems, Sandia National Laboratories, and Dr. Ivan Deutsch, regents' professor, and director, Center for Quantum Information and Control, UNM, discussed the quantum information science research at Sandia National Laboratories, Los Alamos National Laboratory and UNM. Dr. Deutsch described the prior work in quantum research of these entities and discussed the opportunity to create the Quantum New Mexico Institute, with the objective of bringing together and expanding the research and development in quantum information science and technologies. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%208%20--%20Sandia-UNM%2 Opresentation%20--%20Quantum%20NM%20.pdf.

# Advanced Manufacturing: Energy Power Management for Renewables and Recruitment of Industry (11:10 a.m.)

Dr. Ganesh "Gunny" Balakrishnan, director, New Mexico Established Program to Stimulate Competitive Research (EPSCoR), and professor and associate chair, Department of Electrical and Computer Engineering, UNM, described the activities of the EPSCoR office, which provides research, education and outreach support for all institutions in the state of New Mexico. Dr. Balakrishnan also described several of the EPSCoR projects, such as the NM SMART Grid Center, which focuses on sustainable electric grids, and the Center for Research Excellence in Additive Technology and Education project on additive manufacturing, also known as 3D printing. EPSCoR is a federal-state partnership program created by the United States Department of Energy and is designed to enhance the capabilities of designated states and territories to conduct sustainable and nationally competitive energy-related research. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20070722%20Item%209%20EPSCoR%20Presentation.pdf.

### **Public Comment**

There was no public comment.

# Adjournment

There being no further business before the committee, the meeting adjourned at 11:43 a.m.

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# TENTATIVE AGENDA for the THIRD MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## August 8, 2022 New Mexico Institute of Mining and Technology Socorro

# August 9, 2022 Spaceport America Upham

# Monday, August 8 — Socorro

9:00 a.m.		<b>Call to Order and Introductions</b> —Senator Michael Padilla, Chair
9:15 a.m.	(1)	<b>EXECUTIVE SESSION: New Mexico Institute of Mining and</b> <b>Technology (NM Tech) Las Playas Peace Project (Legislators Only)</b>
10:15 a.m.	(2)	Welcome and NM Tech Status Update —Stephen G. Wells, Ph.D., President, NM Tech
11:15 a.m.	(3)	Department of Information Technology (DoIT): Update on Broadband and Other Programs —Peter Mantos, Secretary-Designate, DoIT
11:45 a.m.	(4)	Legislative Finance Committee Information Technology (IT)Spotlights: A New Reporting Tool for IT Project Oversight and theSpotlight for the Medicaid Management Information SystemReplacement—Jessica Hitzman, Fiscal Analyst, Legislative Finance Committee—Jon Courtney, Deputy Director, Legislative Finance Committee
12:15 p.m.		Lunch
1:15 p.m.	(5)	Office of Broadband Access and Expansion (OBAE) Status Update —Kelly Schlegel, Director, OBAE, DoIT
1:45 p.m.	(6)	<ul> <li>New Mexico Fiber Network, LLC (NMFN): Building a Statewide</li> <li>Middle-Mile Fiber Network</li> <li>—Joshua Beug, Chief Executive Officer, NMFN; General Manager, Tularosa Communications</li> </ul>

		<ul> <li>Jason Gonzales, Director of Operations and Technology, Plateau Telecommunications</li> <li>Jay Santillanes, Government Liaison, NMFN</li> <li>Matejka Santillanes, Government Liaison, NMFN</li> </ul>
2:30 p.m.	(7)	<ul> <li><u>Recruiting Women into Engineering Careers</u></li> <li>—Sharon Sessions, Ph.D., Associate Chair, Department of Physics, and Director, Office of Outreach, NM Tech</li> </ul>
3:30 p.m.	(8)	<ul> <li>Water Data Act Status Update</li> <li>—Stacy Timmons, Associate Director, Hydrogeology, New Mexico Bureau of Geology and Mineral Resources (NMBGMR), NM Tech</li> <li>—Mike Timmons, Ph.D., Interim Director, NMBGMR, NM Tech</li> </ul>
4:30 p.m.		Public Comment
5:00 p.m.		Recess
Tuesday, Aug	gust 9	— Upham — Tour of Spaceport America (Legislators Only)
9:30 a.m.		Meet at the Spaceport Operations Center (SOC) — Tour of SpinLaunch Site and SOC
11:00 a.m.		Tour of Virgin Galactic
1:00 p.m.		Adjourn

# MINUTES of the THIRD MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

#### August 8, 2022 New Mexico Institute of Mining and Technology Socorro

### August 9, 2022 Spaceport America Upham

The third meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Michael Padilla, chair, on August 8, 2022 at 9:10 a.m. at the New Mexico Institute of Mining and Technology (NM Tech) in Socorro.

#### Present

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Sen. William F. Burt Rep. Joy Garratt Sen. Shannon D. Pinto (8/8) Rep. Larry R. Scott Sen. William P. Soules

#### **Advisory Members**

Sen. Craig W. Brandt (8/8) Rep. Christine Chandler (8/8) Rep. Gail Chasey (8/8) Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez (8/8)

#### **Guest Legislators**

Sen. Linda M. Lopez (8/8) Sen. Pat Woods (8/8)

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

#### Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Sabina Gaynor, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS

#### Absent

Rep. Jason C. Harper Sen. Mark Moores Sen. Harold Pope

Rep. Eliseo Lee Alcon Rep. Kelly K. Fajardo Sen. Leo Jaramillo Sen. Bill B. O'Neill Rep. Andrea Romero Rep. Linda Serrato

#### Guests

The guest list is in the meeting file.

#### Handouts

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#### Monday, August 8 — Socorro

#### Welcome and Introductions (9:10 a.m.)

Senator Padilla welcomed the committee, and members of the committee and staff introduced themselves.

# EXECUTIVE SESSION: NM Tech Las Playas Peace Project (Legislators Only) (9:15 a.m.)

The committee recessed into executive session to hear a report on NM Tech's Playas Electronic Attack and Cyber Environment Project.

#### Welcome and NM Tech Status Update (10:44 a.m.)

Dr. Stephen G. Wells, president, NM Tech, welcomed the committee to the campus and provided a brief overview of the university and several of the university program activities.

# Department of Information Technology (DoIT): Update on Broadband and Other Programs (11:33 a.m.)

Peter Mantos, secretary-designate and state chief information officer, DoIT, discussed three of the department's priorities: support for broadband, increased cybersecurity posture and making the DoIT a customer-centric organization. Mr. Mantos also discussed the department's current operating budget and the plan to rewrite the Department of Information Technology Act. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20080822%20Item%203%20DoIT%20Status%20an d%20Plans%2008-Aug-22.pdf.

## Legislative Finance Committee Information Technology (IT) Spotlights: A New Reporting Tool for IT Project Oversight and the Spotlight for the Medicaid Management Information System Replacement (12:34 p.m.)

Jessica Hitzman, fiscal analyst, Legislative Finance Committee; Jon Courtney, deputy director, Legislative Finance Committee; and Sean Pearson, chief information officer, Information Technology Division, Human Services Department, presented their committee

report on the Medicaid Management Information System Replacement project. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20080822%20Item%204%20LFC%20MMISR%20S potlight.pdf.

#### Approval of Minutes (12:52 p.m.)

The committee approved the minutes of the July 7-8, 2022 meeting.

### Office of Broadband Access and Expansion (OBAE) Status Update (2:17 p.m.)

Kelly Schlegel, director, OBAE, DoIT, described the foundation of the OBAE and expounded upon the goals and directions of the new office. The presentation can be found here:

# https://www.nmlegis.gov/handouts/STTC%20080822%20Item%205%20Office%20of%20Broad band%20Access%20and%20Expansion.pdf.

# New Mexico Fiber Network, LLC (NMFN): Building a Statewide Middle-Mile Fiber Network Update (2:49 p.m.)

Joshua Beug, chief executive officer, NMFN, and general manager, Tularosa Communications; Jason Gonzales, director of operations and technology, Plateau Telecommunications; Jay Santillanes, government liaison, NMFN; and Matejka Santillanes, government liaison, NMFN, described the NMFN as an organization that has been formed from a collection of 11 New Mexico member companies to further the interconnection of their fiberbased networks. These broadband companies have come together to extend the state's middle-mile network by providing fiber-optic capabilities to telecom providers and direct business customers, such as hospitals and schools. These companies include: Baca Valley Telephone Company, Inc.; Dell Telephone Cooperative, Inc.; ENMR Telephone Cooperative; La Jicarita Rural Telephone Cooperative; Leaco Rural Telephone Cooperative, Inc.; Peñasco Valley Telephone Cooperative, Inc.; Roosevelt County Rural Telephone Cooperative, Inc.; Sacred Wind Communications, Inc.; Tularosa Communications, Inc.; Valley Telephone Cooperative, Inc.; and Western New Mexico Telephone Company, Inc. The companies that comprise the NMFN serve 58% of the geographic area of New Mexico. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20080822%20Item%206%20NM%20Fiber%20Netw ork%20-%20Middle%20Mile.pdf.

#### Recruiting Women into Engineering Careers (3:20 p.m.)

Dr. Sharon Sessions, associate chair, Department of Physics, and director, Office of Outreach, NM Tech, described how and why New Mexico should support the recruitment of women into engineering careers. Dr. Sessions provided examples of how providing opportunities to engage in engineering and other science, technology, engineering and mathematics (STEM) activities inspires students to pursue further STEM knowledge and, hopefully, technical careers. The presentation can be found here: https://www.nmlegis.gov/handouts/STTC%20080822%20Item%207%20Recruiting%20Women %20into%20%20Engineering%20Careers.pdf.

### Water Data Act Status Update (3:47 p.m.)

Dr. Mike Timmons, interim director, New Mexico Bureau of Geology and Mineral Resources (NMBGMR), NM Tech, described the missions and programs of the NMBGMR, a state agency and research division at NM Tech. Stacy Timmons, associate director, NMBGMR, NM Tech, brought the committee up to date on the 2022 plan regarding the assessment of water data and information needs for the New Mexico Water Data Initiative. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20080822%20Item%208%202022%20NM%20Wate r%20Data%20Initiative.pdf.

#### Public Comment (4:44 p.m.)

Jan Williams, fellow, Society of Women Engineers, provided a statement supporting the work in STEM education and the proliferation of broadband in the state.

Valentin Anaya, Jr. introduced his son, Valentin "Gogo" Anaya III, who has autism spectrum disorder. They demonstrated his new tablet equipment that allows him to speak. Unfortunately, this equipment did not arrive until more than 3,000 days after they received approval for it.

#### Recess

The meeting recessed at 4:53 p.m.

#### Tuesday, August 9 — Upham

#### Tour of Spaceport America (Legislators Only) (9:20 a.m.)

Committee members met at Spaceport America and toured the facility as well as several of the tenant facilities.

#### Adjournment

There being no further business before the committee, the meeting adjourned at 1:50 p.m.

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# TENTATIVE AGENDA for the FOURTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## September 1-2, 2022 Career and Technical Education Center of Hobbs 801 North Marland Boulevard Hobbs

### Thursday, September 1

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Vice Chair
10:15 a.m.	(1)	Welcome to Hobbs and Lea County—Sam Cobb, Mayor, City of Hobbs—Michael Gallagher, Manager, Lea County
10:45 a.m.	(2)	Holtech —Ed Mayer, Project Director, Holtec International
11:45 a.m.	(3)	Career and Technical Education Center at Hobbs (CTECH): Building <u>a Can-Do Workforce for New Mexico</u> —Zeke Kaney, Director, CTECH —Efren Hernandez, Construction Student, CTECH —Natalie Orosco, Digital Media Student, CTECH
12:45 p.m.		Lunch
1:30 p.m.	(4)	Power in Partnership: The Permian Strategic Partnership's (PSP's)Collaboration with Local Communities to Support Education andWorkforce Development—Heather Brewer, Consultant, PSP
2:30 p.m.	(5)	Fitting Ongoing Rural Broadband Development into the State'sEmerging Broadband Deployment Plan: Lea County Case Model—David Jimenez, Chief Executive Officer, Leaco Rural Telephone Cooperative, Inc.

3:30 p.m. (6)	<b>Deployment of New Mexico NextGen 911 in the Public Safety</b>	
		<u>Community</u>
		—Angela Martinez, Executive Director, Lea County Communication Authority (LCCA)
		-Mitchell Tuckness, Information Technology Administrator, LCCA
4:30 p.m.		Public Comment

5:00 p.m. Recess

# Friday, September 2

8:05 a.m.		Tour of Urenco (Committee Only)
10:00 a.m.	(7)	<ul> <li>State Broadband Plan: Middle Mile and Right-of-Way Updates</li> <li>—Kelly Schlegel, Director, Office of Broadband Access and Expansion, Department of Information Technology</li> </ul>
11:00 a.m.	(8)	Law Enforcement Technologies: Sifting Data, Investigation Tools and Identifying Potential Issues Before an Incident Happens —Corporal Travis Hobbs, Training and Recruiting Division, Lea County Sheriff's Office
12:00 noon		Public Comment
12:30 p.m.		Adjourn

## MINUTES of the FOURTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## September 1-2, 2022 Career and Technical Education Center of Hobbs 801 North Marland Boulevard Hobbs

The fourth meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, vice chair, on September 1, 2022 at 10:08 a.m. at the Career and Technical Education Center at Hobbs (CTECH).

#### Present

Rep. Debra M. Sariñana, Vice Chair Sen. Shannon D. Pinto Sen. Harold Pope Rep. Larry R. Scott Sen. William P. Soules (9/1)

#### **Advisory Members**

Rep. Kelly K. Fajardo Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez

#### Absent

Sen. Michael Padilla, Chair Sen. William F. Burt Rep. Joy Garratt Rep. Jason C. Harper Sen. Mark Moores

Rep. Eliseo Lee Alcon Sen. Craig W. Brandt Rep. Christine Chandler Rep. Gail Chasey Sen. Leo Jaramillo Sen. Bill B. O'Neill Rep. Andrea Romero Rep. Linda Serrato

### **Guest Legislators**

Rep. Cathrynn N. Brown Sen. Crystal R. Diamond (9/1) Sen. Gay G. Kernan

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

### Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Sabina Gaynor, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS

#### Guests

The guest list is in the meeting file.

### Handouts

Handouts and other written testimony are in the meeting file and posted on the legislature's website.

### **References to Webcast**

The time reference noted next to each agenda item in this document is cross-referenced to the webcast of the committee meeting, which can be found at <u>www.nmlegis.gov</u>, under the "Webcast" tab. The presentations made and committee discussions for agenda items can be found on the recorded webcast for this meeting.

## Thursday, September 1

### Welcome and Introductions (10:08 a.m.)

Representative Sariñana welcomed the committee, and members of the committee and staff introduced themselves.

## Welcome to Hobbs and Lea County (10:44 a.m.)

Sam Cobb, mayor, City of Hobbs, and Michael Gallagher, manager, Lea County, welcomed the committee to the campus and provided a brief overview of the regional activities of the city and county.

### Holtech International — Interim Storage Facility for Spent Nuclear Fuel (10:24 a.m.)

Ed Mayer, project director, Holtec International, provided an overview of the interim storage facility that Holtec International has created in Lea County. Mr. Mayer went on to explain the national requirements for interim storage of spent nuclear fuel and the technology that Holtec International is developing in the area. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20090122%20Item%202%20-%20Holtech%20presentation.pdf.

## CTECH: Building a Can-Do Workforce for New Mexico (12:04 p.m.)

Zeke Kaney, director, CTECH; Efren Hernandez, construction student, CTECH; and Natalie Orosco, digital media student, CTECH, described the six clusters of education provided at CTECH: construction and architecture, transportation, manufacturing, culinary and hospitality, energy and information technology. Ms. Orosco and Mr. Hernandez introduced themselves and provided more information about their involvement in the CTECH program.

## Power in Partnership: The Permian Strategic Partnership's (PSP's) Collaboration with Local Communities to Support Education and Workforce Development (1:51 p.m.)

Heather Brewer, consultant, PSP, discussed the focus areas of the PSP and how the investments in the partnership have provided significant economic development in the Permian Basin. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20090122%20Item%204%20Power%20in%20Partne rship%20-%20Permian%20Strategic%20Partnership%20(PSP).pdf.

# Fitting Ongoing Rural Broadband Development into the State's Emerging Broadband Deployment Plan: Lea County Case Model (2:29 p.m.)

David Jimenez, chief executive officer, Leaco Rural Telephone Cooperative, Inc., described the progress to bridge the digital divide in Lea County. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/1/2022&Item Number=5.

## Deployment of New Mexico NextGen 911 in the Public Safety Community (3:06 p.m.)

Angela Martinez, executive director, Lea County Communication Authority (LCCA), and Mitchell Tuckness, information technology administrator, LCCA, described the deployment of the NextGen 911 to enhance the emergency communications systems in Lea County. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20090122%20Item%206%20Deployment%20of%20 New%20Mexico%20NextGen%209-1-1.pdf.

## Public Comment (3:51 p.m.)

A list of individuals making public comment is available in the meeting file.

## Recess

The meeting recessed at 3:54 p.m.

## Friday, September 2

## Tour of Urenco (8:25 a.m.)

Committee members met at and toured the Urenco facility.

## State Broadband Plan: Middle Mile and Right-of-Way Updates (10:25 a.m.)

Kelly Schlegel, director, Office of Broadband Access and Expansion (OBAE), Department of Information Technology, provided an update of the projects undertaken by the OBAE and expounded upon the goals and directions of the new office. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20090122%20Item%207%20OBAE%20Middle%20 Mile%20and%20Right%20of%20Way%20Updates.pdf.

## Law Enforcement Technologies: Sifting Data, Investigation Tools and Identifying Potential Issues Before an Incident Happens (12:05 p.m.)

Corporal Travis Hobbs, Training and Recruiting Division, Lea County Sheriff's Office, provided a presentation regarding the technology that would assist law enforcement in investigating cases.

## Public Comment (12:23 p.m.)

A list of individuals making public comment is available in the meeting file.

## Adjournment

There being no further business before the committee, the meeting adjourned at 12:29 p.m.

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## TENTATIVE AGENDA for the FIFTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## October 27-28, 2022 Henderson Fine Arts Center San Juan College 4601 College Boulevard Farmington

## Thursday, October 27

10:00 a.m.		Call to Order and Introductions —Senator Michael Padilla, Chair
10:10 a.m.	(1)	Welcome and San Juan College Update —Dr. Toni Hopper Pendergrass, President, San Juan College
11:00 a.m.	(2)	<ul> <li>Children, Youth and Families Comprehensive Child Welfare         Information System Project Status Update         —Barbara J. Vigil, Secretary, Children, Youth and Families Department (CYFD)         —Hilari Lipton, Senior Advisor, Office of the Secretary, CYFD         —Shannon Barnes, Manager, Independent Verification and Validation Project, CYFD     </li> </ul>
12:00 noon		Lunch
1:00 p.m.	(3)	<ul> <li>Medicaid Management Information System Replacement Project Status Update</li> <li>—Kari Armijo, Deputy Secretary, Human Services Department (HSD)</li> <li>—Sean Pearson, Chief Information Officer, Information Technology Division, HSD</li> <li>—Linda Gonzales, Deputy Director, Medical Assistance Division, HSD</li> <li>—Joseph Tighe, Enterprise Business Manager, HSD</li> <li>—Tim Struck, Chief Information Officer, Aging and Long-Term Services Department</li> <li>—William Hanks, Chief Information Officer, Information Technology Division, CFYD</li> <li>—Hilari Lipton, Senior Advisor, Office of the Secretary, CYFD</li> <li>—Glidden Martinez, Chief Information Officer, Early Childhood Education and Care Department</li> </ul>

3:00 p.m.	(4)	Department of Information Technology (DoIT) Status Update and Discussion of Effective Annual sheefor Information Technology Project
		<b>Discussion of Effective Approaches for Information Technology Project</b>
		<u>Oversight</u>
		—Peter Mantos, Secretary-Designate, DoIT
		—Jon Courtney, Deputy Director, Legislative Finance Committee (LFC)
		—Jessica Hitzman, Fiscal Analyst, LFC

4:00 p.m. **Recess** 

## Friday, October 28

9:00 a.m.	(5)	<ul> <li>Parity of Telecommunications Regulation</li> <li>—Senator Michael Padilla</li> <li>—Leo Baca, Director, Government and Regulatory Affairs, Lumen Technologies, Inc.</li> </ul>
9:45 a.m.	(6)	Robot Security Technology —Andy Sanchez, Channel Partner Manager, Team 1st Technologies, LLC
10:45 a.m.	(7)	The New Mexico Technology Council and NM IDEA —Mia Petersen, Executive Director, New Mexico Technology Council —Leo Baca, President, Board of Directors, NM IDEA —Jason Espinoza, Co-Owner, KW Consulting LLC
11:30 a.m.	(8)	<ul> <li>New Mexico Reforestation Center Status Update</li> <li>—Collin Haffey, Coordinator, Forest and Watershed Health Office, Forestry Division, Energy, Minerals and Natural Resources Department</li> <li>—Leslie Edgar, Associate Dean and Director, Agricultural Experiment Station, College of Agricultural, Consumer and Environmental Sciences, New Mexico State University</li> </ul>
12:15 p.m.		Public Comment
12:30 p.m.		Adjourn

## MINUTES of the FIFTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## October 27-28, 2022 Henderson Fine Arts Center San Juan College 4601 College Boulevard Farmington

The fifth meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Michael Padilla, chair, on October 27, 2022 at 10:10 a.m. at the Henderson Fine Arts Center at San Juan College in Farmington.

#### Present

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Rep. Eliseo Lee Alcon\* Sen. Shannon D. Pinto Sen. Harold Pope Sen. William P. Soules

#### **Advisory Members**

Sen. Craig W. Brandt Rep. Kelly K. Fajardo (10/28) Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Sen. Nancy Rodriguez (10/28)

#### **Guest Legislators**

Rep. Anthony Allison Rep. T. Ryan Lane (10/28) Rep. Rod Montoya Sen. William E. Sharer Rep. James R.J. Strickler

### Absent

Rep. Linda Garcia Benavides Sen. William F. Burt Rep. Joy Garratt Rep. Jason C. Harper Sen. Mark Moores Rep. Larry R. Scott

Rep. Christine Chandler Rep. Gail Chasey Sen. Leo Jaramillo Sen. Bill B. O'Neill Rep. Andrea Romero Rep. Linda Serrato

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

\*Appointed by the speaker of the house of representatives as a voting member for this meeting only.

## Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Erin Bond, Researcher, LCS Ralph Vincent, Systems Consultant, LCS

## Guests

The guest list is in the meeting file.

## Handouts

Handouts and other written testimony are in the meeting file and posted on the legislature's website.

## **References to Webcast**

The time reference noted next to each agenda item in this document is cross-referenced to the webcast of the committee meeting, which can be found at <u>www.nmlegis.gov</u>, under the "Webcast" tab. The presentations made and committee discussions for agenda items can be found on the recorded webcast for this meeting.

## Thursday, October 27

## Welcome and Introductions (10:10 a.m.)

Senator Padilla welcomed the committee, and members of the committee and staff introduced themselves.

## Welcome and San Juan College Update (10:16 a.m.)

Edward M. DesPlas, executive vice president, San Juan College, welcomed the committee to the campus and provided a brief overview of the activities of the college, including technical growth in the past few years. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20102722%20Item%201%20San%20Juan%20Colle ge%20Update.pdf.

## Approval of Minutes (11:10 a.m.)

Upon a motion made and seconded, and without any objections, the committee approved the minutes of the August 8-9, 2022 meeting and the minutes of the September 1-2, 2022 meeting.

## Children, Youth and Families Comprehensive Child Welfare Information System Project Status Update (11:12 a.m.)

Barbara J. Vigil, secretary, Children, Youth and Families Department (CYFD), and Hilari Lipton, senior advisor, office of the secretary, CYFD, provided an overview of the department, CYFD goals and an update of the CYFD project to modernize the Comprehensive Child Welfare Information System. Shannon Barnes, CSG Government Solutions, initially served in the independent verification and validation role and will subsequently serve in the project management role. The presentation materials can be found here:

## https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/27/2022&Ite mNumber=2.

# Medicaid Management Information System Replacement Project Status Update (1:21 p.m.)

Kari Armijo, deputy secretary, Human Services Department (HSD); Sean Pearson, chief information officer, Information Technology Division, HSD; and Joseph Tighe, enterprise business manager, HSD, discussed the mission and goals of the HSD and provided a status update for the Medicaid Management Information System Replacement project. The presenters emphasized that the system supports HSD efforts to support over one-half of New Mexico's population through the Medicaid program.

Glidden Martinez, chief information officer, Department of Health; Tim Struck, chief information officer, Aging and Long-Term Services Department; and Sandeep Patel, chief information officer, Early Childhood Education and Care Department, described the coordinated efforts of the departments to integrate data among all health and human services offered by the state of New Mexico. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20102722%20Item%203%20Medicaid%20Manage ment%20Infomation%20System%20Replacement%20Project.pdf.

# Department of Information Technology (DoIT) Status Update and Discussion of Effective Approaches for Information Technology Project Oversight (3:10 p.m.)

Peter Mantos, secretary-designate, DoIT, discussed the DoIT's plans for revising the Department of Information Technology Act and the DoIT's hiring and retention challenges and planning in the areas of broadband expansion and cybersecurity. Jessica Hitzman, fiscal analyst, Legislative Finance Committee, discussed strategies of information technology oversight and management and how those strategies are implemented in state government. Ms. Hitzman also included options to implement more legislative oversight of information technology projects. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/27/2022&Ite mNumber=4.

## Recess

The meeting recessed at 4:04 p.m.

## Friday, October 28

## Parity of Telecommunications Regulation (9:03 a.m.)

Senator Padilla; Leo Baca, director, Government and Regulatory Affairs, Lumen Technologies, Inc.; and Timothy Kunkleman, public policy director, Government and Regulatory Affairs, Lumen Technologies, Inc., discussed the importance of broadband in the state and proposed amendments to the New Mexico Telecommunications Act. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/27/2022&Ite mNumber=5.

#### Robot Security Technology (9:47 a.m.)

Andy Sanchez, channel partner manager, Team 1st Technologies, LLC (T1T); Dave Dworsky, chief executive officer, T1T; and Rob Salsman, director of business and product development, T1T, demonstrated T1T's security robot and discussed the emerging technology of artificial intelligence-powered robotics. The group discussed the possibilities that these robots could provide security workforce augmentation.

## The New Mexico Technology Council and NM IDEA (10:59 a.m.)

Mia Petersen, executive director, New Mexico Technology Council; Leo Baca, president, Board of Directors, NM IDEA; and Jason Espinoza, co-owner, KW Consulting LLC, discussed the work of the New Mexico Technology Council and NM IDEA in their efforts to boost economic development in the state. The group provided recommendations for the state to enhance economic development in the areas of workforce development, access to venture capital funds and other investments that support economic development activities. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20102722%20Item%207%20New%20Mexico%20Id ea%20and%20New%20Mexico%20Tech%20Council%20Presentation%20.pdf.

## New Mexico Reforestation Center Status Update (11:35 a.m.)

Collin Haffey, coordinator, Forest and Watershed Health Office, Forestry Division, Energy, Minerals and Natural Resources Department, and Leslie Edgar, associate dean and director, Agricultural Experiment Station, College of Agricultural, Consumer and Environmental Sciences, New Mexico State University, discussed the issues posed this past summer due to forest fires and the resultant threats to the seeds and seedlings that are maintained for the reforestation efforts of the New Mexico Reforestation Center. Mr. Haffey explained that the need for seedlings is more than five million annually and noted that the New Mexico Reforestation Center only has a capacity to replace 300,000 trees per year. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20102722%20Item%208%20Ag%20Experiment%20 Station%20and%20EMNRD%20Reforestation%20Center .pdf.

#### **Public Comment**

There was no public comment.

#### Adjournment

There being no further business before the committee, the meeting adjourned at 12:30 p.m.

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## TENTATIVE AGENDA for the SIXTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## November 16-17, 2022 State Capitol, Room 322 Santa Fe

## Wednesday, November 16

10:00 a.m.		Executive Session (Legislators Only)
11:00 a.m.	(1)	New Mexico Exchange Carrier Group (NMECG) Broadband Update —Matejka Santillanes, Executive Director, NMECG —Jay Santillanes, Lobbyist, NMECG
12:00 noon		Lunch
1:00 p.m.	(2)	Department of Information Technology (DoIT) Looking Toward 2023 —Peter Mantos, Secretary, DoIT
2:00 p.m.	(3)	Overview of Public Safety Radio Communications and the P25 - Digital Trunked Radio System Project —Michael Rohrbacher, Director, Public Safety and Radio Communications, DoIT
3:00 p.m.	(4)	<ul> <li><u>New Mexico Bioscience Authority Update</u></li> <li>—Richard Larson, M.D., Ph.D., President, New Mexico Bioscience Authority; Vice President of Research, University of New Mexico (UNM) Health Sciences Center</li> </ul>
4:00 p.m.	(5)	<ul> <li><u>Picuris Energy Project Update</u></li> <li>—Abbas Akhil, Former State Representative, District 20; Principal, Renewable Energy Ventures, LLC</li> </ul>
4:30 p.m.		Public Comment
5:00 p.m.		Recess

## Thursday, November 17

9:00 a.m.	(6)	Los Alamos National Laboratory (LANL) Update —Frances Chadwick, Staff Director, LANL —Kathy Keith, Director, Community Partnerships Office, LANL
10:00 a.m.	(7)	<ul> <li><u>Technology Readiness Gross Receipts Tax Credit Update</u></li> <li>—Mariann Johnston, Deputy Program Director, Richard P. Feynman Center for Innovation, LANL</li> <li>—David Kistin, Manager, Technology and Economic Development, Sandia National Laboratories (SNL)</li> </ul>
10:30 a.m.	(8)	<ul> <li><u>State Education Network Update</u></li> <li>—Ovidiu Viorica, Program Manager, Broadband and Technology, Public School Facilities Authority</li> </ul>
11:30 a.m.	(9)	Office of Broadband Access and Expansion (OBAE) Update —Kelly Schlegel, Director, OBAE, DoIT —Dianne Lindstrom, Deputy Director, OBAE, DoIT
12:00 noon		Lunch
1:30 p.m.	(10)	SNL Status Update —James S. Peery, Ph.D., Director, SNL
2:30 p.m.	(11)	<ul> <li>Education and the Economy: The Importance of Research and Development</li> <li>—Joseph Shepard, Ph.D., President, Western New Mexico University</li> <li>—Nelia Dunbar, Ph.D., Interim Vice President for Research, New Mexico Institute of Mining and Technology</li> <li>—David Hanson, Ph.D., Assistant Vice President for Research, UNM</li> <li>—Ganesh Balakrishnan, Ph.D., Director, New Mexico Established Program to Stimulate Competitive Research</li> <li>—Luis Cifuentes, Ph.D., Vice President for Research, New Mexico State University</li> </ul>
3:30 p.m.		Public Comment
4:00 p.m.		Adjourn

## MINUTES of the SIXTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

## November 16-17, 2022 State Capitol, Room 322 Santa Fe

The sixth meeting of the Science, Technology and Telecommunications Committee was called to order by Senator Michael Padilla, chair, on November 16, 2022 at 10:04 a.m. in Room 322 of the State Capitol in Santa Fe.

#### Present

Sen. Michael Padilla, Chair Rep. Debra M. Sariñana, Vice Chair Rep. Linda Garcia Benavides Rep. Joy Garratt Sen. Shannon D. Pinto (11/16) Sen. Harold Pope

#### **Advisory Members**

Rep. Kelly K. Fajardo (11/16) Sen. Bill B. O'Neill Rep. Randall T. Pettigrew Rep. Jane E. Powdrell-Culbert Rep. Andrea Romero

## Absent

Sen. William F. Burt Rep. Jason C. Harper Sen. Mark Moores Rep. Larry R. Scott Sen. William P. Soules

Rep. Eliseo Lee Alcon Sen. Craig W. Brandt Rep. Christine Chandler Rep. Gail Chasey Sen. Leo Jaramillo Sen. Nancy Rodriguez Rep. Linda Serrato

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

#### Staff

Mark Edwards, Bill Drafter, Legislative Council Service (LCS) Sabina Gaynor, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS

#### **Minutes Approval**

Because the committee will not meet again this year, the minutes for this meeting have not been officially approved by the committee.

#### Guests

The guest list is in the meeting file.

## Handouts

Handouts and other written testimony are in the meeting file and posted on the legislature's website.

### **References to Webcast**

The time reference noted next to each agenda item in this document is cross-referenced to the webcast of the committee meeting, which can be found at <u>www.nmlegis.gov</u>, under the "Webcast" tab. The presentations made and committee discussions for agenda items can be found on the recorded webcast for this meeting.

## Wednesday, November 16

### Welcome and Introductions (10:04 a.m.)

Senator Padilla welcomed the committee, and members of the committee and staff introduced themselves.

## EXECUTIVE SESSION: Cybersecurity Update (Legislators Only) (10:06 a.m.)

The committee went into executive session to hear from Raja Sambandam, chief information security officer, Department of Information Technology (DoIT). Mr. Sambandam discussed the current status of cybersecurity within state agencies. Peter Mantos, secretary-designate, DoIT, described the newly created Cybersecurity Planning Committee that is working as a task force to review cybersecurity within all entities in the state.

## New Mexico Exchange Carrier Group (NMECG) Broadband Update (11:30 a.m.)

Matejka Santillanes, executive director, NMECG, and Jay Santillanes, lobbyist, NMECG, discussed the status of broadband in rural New Mexico and how the current statutes that regulate telecommunications and the State Rural Universal Service Fund could be amended to include broadband expansion.

## Approval of Minutes (11:46 a.m.)

The committee approved the minutes of the October 27-28, 2022 meeting.

## DoIT Looking Toward 2023 (1:05 p.m.)

Mr. Mantos described the current status of the DoIT and discussed the plans for a rewrite of the Department of Information Technology Act. The presentation can be found here:

#### https://www.nmlegis.gov/handouts/STTC%20111622%20Item%202%20DoIT%20Plans.pdf.

## Overview of Public Safety Radio Communications and the P25-Digital Trunked Radio System Project (1:56 p.m.)

Michael Rohrbacher, director, Public Safety and Radio Communications, DoIT, discussed the infrastructure facilities of the public safety network in New Mexico and the current project implementing a digital trunked radio system. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%203%20P25%20%E2%80%93 %20Digital%20Trunked%20Radio%20System.pdf.

### New Mexico Bioscience Authority Update (2:43 p.m.)

Richard Larson, M.D., Ph.D., president, New Mexico Bioscience Authority, and vice president of research, University of New Mexico (UNM) Health Sciences Center, provided an update of the New Mexico Bioscience Authority and requested support from the committee to ensure the growth of the bioscience industry in the state. Dr. Larson discussed two requests: 1) a co-investment program with a request of \$50 million from the state to encourage investing in new bioscience companies; and 2) a bioscience business accelerator program with a request of \$650,000. Four board members, including Sarah Boisvert, founder, New Collar Network; Paul Laur, chief executive officer, Spartina Biotechnologies; Gregory Byrnes, executive director, New Mexico Biotechnology and Biomedical Association; and Donald Godwin, dean, UNM College of Pharmacy, addressed the committee about their experiences with and support for the New Mexico Bioscience Authority. The presentation materials can be found here:

## https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/16/2022&Ite mNumber=4.

## Picuris Energy Project Update (3:52 p.m.)

Abbas Akhil, former state representative, District 20, and principal, Renewable Energy Ventures, LLC, described the vision of the members of the Pueblo of Picuris to develop energy independence and resiliency over their entire tribal lands. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%205%20Picuris%20Pueblo%20 Energy%20Self%20Sufficiency.pdf.

#### **Public Comment**

There was no public comment.

#### Recess

The meeting recessed at 4:21 p.m.

## Thursday, November 17

#### Los Alamos National Laboratory (LANL) Update (9:04 a.m.)

Frances Chadwick, staff director, LANL, provided an update on staffing and research and development activities at LANL. Kathy Keith, director, Community Partnerships Office, LANL, discussed the economic development efforts at LANL, including collaborative efforts with state government and potential entrepreneurs. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%206%20Director%20Chadwick%20--%20Los%20Alamos%20National%20Laboratory%20Update.pdf.

## Technology Readiness Gross Receipts Tax Credit Update (10:17 a.m.)

Mariann Johnston, deputy program director, Richard P. Feynman Center for Innovation, LANL, and David Kistin, manager, Technology and Economic Development, Sandia National Laboratories (SNL), presented a progress report on the technology readiness initiative and the impact of the technology readiness gross receipts tax credit. William Kurtz, chief operating officer and founder, IR Dynamics, LLC, described the technology that uses a thermochromic nanotech coating to make windows more energy efficient and how the Technology Readiness program assisted the company in developing its business. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%207%20Technology%20Redine ss%20Gross%20Receipts%20Tax%20Credit%20Update.pdf.

### **State Education Network Update (10:41 a.m.)**

Ovidiu Viorica, program manager, Broadband and Technology, Public School Facilities Authority, described the architecture of the state education network infrastructure that supports New Mexico public schools, libraries, private schools and higher education institutions. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%208%20State%20Education%2 0Network%20Update-PSFA.pdf.

#### Office of Broadband Access and Expansion (OBAE) Update (11:29 a.m.)

Kelly Schlegel, director, OBAE, DoIT; Dianne Lindstrom, deputy director, OBAE, DoIT; and Mr. Viorica described the accomplishments of the OBAE since organizing in September 2022. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%209%20Office%20of%20Broad band%20Access%20and%20Expansion%20Update.pdf.

#### Public Comment (1:35 p.m.)

Jan Williams, fellow, Society of Women Engineers, requested that committee members continue their support of science, technology, engineering and mathematics projects by minorities, women, indigenous people and low-income people whenever possible.

#### SNL Status Update (1:39 p.m.)

James S. Peery, Ph.D., director, SNL, described the work at SNL and detailed several programs in its outreach efforts. Dr. Peery also discussed the staffing needs of SNL and detailed issues that SNL face with hiring and retention. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%2010%20Sandia%20Natl%20L abs%20Status%20Update.pdf.

#### Education and the Economy: The Importance of Research and Development (2:19 p.m.)

Mark Saavedra, director, New Mexico Council of University Presidents, representing Joseph Shepard, Ph.D., president, Western New Mexico University; Matthew Gallegos, executive director, Tech Transfer Collaborative Office, New Mexico Institute of Mining and Technology (NMIMT); Nelia Dunbar, Ph.D., interim vice president for research, NMIMT; David Hanson, Ph.D., assistant vice president for research, UNM; Ganesh Balakrishnan, Ph.D., director, New Mexico Established Program to Stimulate Competitive Research; and Luis Cifuentes, Ph.D., vice president for research, New Mexico State University, discussed the impact of research universities and how the research projects and dollars integrate into the ecosystems of these educational institutions. Stephen Wells, president, NMIMT, made additional comments in regard to the collaboration of the institutions on research projects. The presentation can be found here:

https://www.nmlegis.gov/handouts/STTC%20111622%20Item%2011%20NM%20Universities %20--%20Education%20and%20the%20Economy.pdf.

## Adjournment

There being no further business before the committee, the meeting adjourned at 3:00 p.m.

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