

SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

2024 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 2024 Interim Summary

The Science, Technology and Telecommunications Committee held six meetings during the 2024 interim. In addition to meetings held at the State Capitol in Santa Fe, the committee held meetings at the Early College Opportunities High School in Santa Fe, the New Mexico Institute of Mining and Technology in Socorro and the University of New Mexico in Albuquerque. The committee also toured the Very Large Array on the plains of Saint Augustine near Magdalena.

During the 2024 interim, the committee focused on: the impacts of artificial intelligence technology and regulation; the build-out of infrastructure for electric vehicle charging; and research and science programs at state post-secondary educational institutions. Additionally, the committee received oversight and status update reports regarding: the transition of 911 affiliates to Next-Gen 911; the Children, Youth and Families Department's New Mexico Impact software project; Los Alamos National Laboratory and Sandia National Laboratories; the Office of Broadband Access and Expansion; Spaceport America; the Supercomputing Challenge; and the Water Data Act program.

Presentations were also received regarding legislation being developed on electric school buses; internet child safety and privacy; and extracurricular science, technology, engineering and mathematics programs for children. However, the committee did not consider legislation for endorsement.

WORK PLAN AND MEETING SCHEDULE

2024 APPROVED WORK PLAN AND MEETING SCHEDULE for the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

Members

Rep. Debra M. Sariñana, Chair Sen. Siah Correa Hemphill, Vice Chair Rep. Janelle Anyanonu Sen. Craig W. Brandt Sen. William F. Burt Rep. Joy Garratt

Advisory Members

Rep. Christine Chandler Rep. Gail Chasey Rep. Yanira Gurrola Rep. Jenifer Jones Rep. Willie D. Madrid Rep. Jason C. Harper Rep. Joshua N. Hernandez Rep. Charlotte Little Sen. Michael Padilla Sen. Harold Pope Sen. William P. Soules

Sen. Bill B. O'Neill Sen. Shannon D. Pinto Sen. Nancy Rodriguez Rep. Larry R. Scott Rep. Linda Serrato

Work Plan

The Science, Technology and Telecommunications Committee was created by the New Mexico Legislative Council on March 25, 2024. The committee proposes to continue its oversight role regarding the state's information technology projects, developments at the national laboratories in the state and the science and technological programs at the state's research universities. It also proposes to continue to examine issues regarding the telecommunications market and development of the science- and technology-based economic sector within the state. Further, the committee proposes to continue to explore legislative opportunities to promote energy storage, innovations in renewable energy and technology transfers from research institutions to diversify the economy. Aside from these traditional functions, in 2024, the committee proposes to particularly focus in the following four areas:

A. various aspects of artificial intelligence software (AI) use, including:

(1) decision making regarding the provision and delivery of services, in particular in regard to government services and in health care;

(2) the growing number of applications of AI in research;

(3) the need and opportunities for building AI literacy in school-age and adult populations; and

(4) the impacts that AI use will have on various resources, including energy, water and the labor market;

B. the progress being made to build out the high-speed broadband network in New Mexico and the challenges to that buildout;

C. the changing cybersecurity environment for public institutions and the private sector and potential state responses to developing cybersecurity risks; and

D. the growing market demand for electric vehicle charging infrastructure throughout the state.

Science, Technology and Telecommunications Committee 2024 Approved Meeting Schedule

Date May 1	Location Santa Fe
July 29-30	Santa Fe
August 28-29	Socorro
September 30-October 1	Albuquerque
October 31-November 1	Santa Fe
November 25-26	Santa Fe

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AGENDAS AND MINUTES

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

May 1, 2024 State Capitol, Room 322 Santa Fe

Wednesday, May 1

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Chair
10:15 a.m.	(1)	Overview of Sectors Impacted by Artificial Intelligence Use —Melanie Moses, Ph.D., Professor, Department of Computer Science, University of New Mexico
11:30 a.m.	(2)	2024 Proposed Work Plan and Meeting Schedule —Mark Edwards, Bill Drafter, Legislative Council Service
12:15 p.m.		Adjourn

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

May 1, 2024 State Capitol, Room 322 Santa Fe

The first meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, on May 1, 2024 at 10:18 a.m. in Room 322 of the State Capitol in Santa Fe.

Present

Rep. Debra M. Sariñana, Chair Rep. Janelle Anyanonu Rep. Joy Garratt Sen. Michael Padilla Sen. Shannon D. Pinto* Sen. Harold Pope Sen. Nancy Rodriguez*

Advisory Members

Rep. Christine Chandler

Absent

Sen. Siah Correa Hemphill, Vice Chair Sen. Craig W. Brandt Sen. William F. Burt Rep. Jason C. Harper Rep. Joshua N. Hernandez Rep. Charlotte Little Sen. William P. Soules

Rep. Gail Chasey Rep. Yanira Gurrola Rep. Jenifer Jones Rep. Willie D. Madrid Sen. Bill B. O'Neill Rep. Larry R. Scott Rep. Linda Serrato

*Appointed by the president pro tempore of the senate as a voting member for this meeting only.

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.

Wednesday, May 1

Welcome and Introductions

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

Overview of Sectors Impacted by Artificial Intelligence (AI) Use

Melanie Moses, Ph.D., professor, Department of Computer Science, University of New Mexico (UNM), provided an update on the evolution of AI and provided examples of how generative AI works. She described work at UNM using AI and also provided the members with ideas of what legislators can do to shape the future of AI in New Mexico. Dr. Moses stressed that members should provide "guardrails" for the use of AI to not only protect election campaigns but also to look at state protections for health care, public safety, public education and other areas. She emphasized the importance of providing transparency on AI algorithms that are used to make decisions that affect people's freedoms, financial situation, health and safety. Committee members questioned Dr. Moses on transparency and equity concerns around the use of generative AI. Members also discussed the electrical and water usage concerns for large AI data and computing centers. Dr. Moses stated that powering AI systems may soon consume about 10% of the electricity used in the United States. Dr. Moses suggested that the legislature create a study group to discuss the future of AI and the needs for development and regulation. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=5/1/2024&Item Number=1.

2024 Proposed Work Plan and Meeting Schedule

Mr. Edwards presented the proposed work plan for the 2024 interim, and committee members discussed it. With regard to AI, the committee decided to focus on:

A. transparency, including where AI is being used and how it is used. As a starting point, that examination will begin with government uses and a look at House Bill 184 (2024) but may expand to look at private-sector uses as time and available presenters permit;

B. literacy, particularly as part of K-12 education but also programs for adults;

C. impacts on the provision of services, particularly in health care and expanding into other areas as time permits; and

D. resource demands, including how increased AI use will increase the demand for electricity, water and labor. Potential areas of investigation include what type of workforce will be needed to meet an AI-driven economy and by how much labor needs will be reduced through the use of AI.

Following the discussion, committee members voted to approve the proposed work plan and meeting schedule, as amended. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=5/1/2024&Item Number=2.

Adjournment

There being no further business before the committee, the meeting adjourned at 12:32 p.m.

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

July 29-30, 2024 Early College Opportunities High School 2301 West Zia Road Santa Fe

Monday, July 29

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Chair
		-Representative Debra W. Sarmana, Chan
10:15 a.m.	(1)	 Welcome and Santa Fe Public Schools Overview and Initiatives —Hilario Chavez, Superintendent, Santa Fe Public School District —Kristy Wagner, Deputy Superintendent, Operations and School Support, Santa Fe Public School District —Neal Weaver, Ph.D., Chief Information and Strategy Officer, Santa Fe Public School District
11:00 a.m.		Tour of Rebuilt and New Facilities at Early College Opportunities High School
12:00 noon		Lunch
1:00 p.m.	(2)	 Transparency in Government Use of Artificial Intelligence (AI) Software A. Need for Transparency for AI Use in Government Cristopher Moore, Ph.D., Professor, Santa Fe Institute; Member, Interdisciplinary, Multi-Institution Working Group on Algorithmic Justice B. Government AI Transparency Proposal — Outline of House Bill <u>184 (2024)</u> Mark Edwards, Bill Drafter, Legislative Council Service C. Government AI Transparency: the Colorado Model —Alisa Lauer, Chief of Staff, House Majority Leadership Office
2:15 p.m.	(3)	 <u>New Mexico Impact Software Project Status Update</u> —Peter Street, Technical Advisor, Office of the Secretary, Children, Youth and Families Department (CYFD) —Joseph R. Baros, Jr., Director, Information Technology Special Projects, Office of the Secretary, CYFD

3:15 p.m.Public Comment*3:30 p.m.EXECUTIVE SESSION4:30 p.m.RecessTuesday, July 309:00 a.m.

12:00 noon Adjourn

*Members of the public may make virtual public comments during the public comment period of the meeting by following the instructions under the "Virtual Public Comment" section of the Science, Technology and Telecommunications Committee <u>web page</u>.

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

July 29-30, 2024 Early College Opportunities High School 2301 West Zia Road Santa Fe

The second meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, on July 29, 2024 at 10:06 a.m. at the Early College Opportunities (ECO) High School in Santa Fe.

Present

Rep. Debra M. Sariñana, Chair Rep. Janelle Anyanonu (7/29) Sen. William F. Burt (7/29) Rep. Joy Garratt Rep. Charlotte Little Sen. Harold Pope Sen. William P. Soules

Advisory Members

Rep. Gail Chasey (7/29) Sen. Shannon D. Pinto (7/29) Sen. Nancy Rodriguez (7/29) Rep. Linda Serrato (7/29)

Absent

Sen. Siah Correa Hemphill, Vice Chair Sen. Craig W. Brandt Rep. Jason C. Harper Rep. Joshua N. Hernandez Sen. Michael Padilla

Rep. Christine Chandler Rep. Yanira Gurrola Rep. Jenifer Jones Rep. Willie D. Madrid Sen. Bill B. O'Neill Rep. Larry R. Scott

(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.

Monday, July 29

Welcome and Introductions (10:06 a.m.)

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

Welcome and Santa Fe Public Schools Overview and Initiatives (10:11 a.m.)

Hilario Chavez, superintendent, Santa Fe Public School District (SFPS), and Kristy Wagner, deputy superintendent, Operations and School Support, SFPS, welcomed the committee and provided an overview of the development of career technical education curricula within the SFPS. Neal Weaver, Ph.D., chief information and strategy officer, SFPS, then spoke about the development of effective education and training for students and staff regarding artificial intelligence (AI) within the SFPS. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=7/29/2024&Item Number=1.

Approval of Minutes (11:18 a.m.)

Upon a motion duly made and seconded, and without objection, the minutes of the May 1, 2024 meeting were approved.

Tour of ECO High School (11:19 a.m.)

The committee recessed to take a tour of the ECO High School facilities and for lunch.

Transparency in Government Use of AI Software (12:57 p.m.)

Cristopher Moore, Ph.D., professor, Santa Fe Institute, and member, Interdisciplinary, Multi-Institution Working Group on Algorithmic Justice, spoke about experiences that various governmental agencies around the country have had in using AI software programs to make decisions about policing and providing government services. He used those experiences to highlight the need for transparency when such software is being used to make decisions. Mr. Edwards outlined House Bill 184, which would require transparency for government use of AI software and was introduced in the 2024 legislative session. Alisa Lauer, chief of staff, House Majority Leadership Office, outlined a bill from the state of Colorado requiring transparency when using AI software for private sector, as well as governmental entities. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=7/29/2024&Item Number=2.

New Mexico Impact Software Project Status Update (2:22 p.m.)

Peter Street, technical advisor, Office of the Secretary, Children, Youth and Families Department (CYFD), presented an update on the development of the New Mexico Impact software project that will be used as a platform for many of the CYFD's programs and organization. Emily Hilla, fiscal analyst, Legislative Finance Committee, also provided background on expenditures for the New Mexico Impact software project.

Public Comment

There was no public comment.

Executive Session (3:04 p.m.)

The committee moved into an executive session regarding cybersecurity within state entities.

Recess

The committee recessed at 4:32 p.m.

Tuesday, July 30

Reconvene

The committee reconvened at 9:02 a.m. and continued in executive session.

Adjournment

There being no further business before the committee, the meeting adjourned at 12:18 p.m.

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

August 28-29, 2024 Joseph A. Fidel Center, Ballrooms B and C New Mexico Institute of Mining and Technology 1 Olive Lane Socorro

Wednesday, August 28

10:00 a.m.		Call to Order and Introductions
		-Representative Debra M. Sariñana, Chair
10:15 a.m.	(1)	 Welcome and the 5G Programs at New Mexico Institute of Mining and Technology (NM Tech) —David Manzano, Director, Government Affairs, NM Tech —Carlos R. Romero, Associate Vice President, Office of Research, NM Tech
11:00 a.m.	(2)	Overview of New Research at NM Tech —Mike Doyle, Ph.D., Vice President for Research, NM Tech
12:00 noon		Lunch
1:00 p.m.	(3)	 <u>Supercomputing Challenge</u> —Tom Bowles, Ph.D., Member, Board of Directors, Supercomputing Challenge
1:30 p.m.	(4)	 Space and Astronomy Research and Developments —Van Romero, Ph.D., Vice President of Special Research Programs, NM Tech
2:30 p.m.		Tour — National Radio Astronomy Observatory*
Thursday, Au	ugust	<u>29</u>

 9:00 a.m. (5) <u>Spaceport America Update</u> —Scott McLaughlin, Executive Director, Spaceport America —Francisco Pallares, Ph.D., Director of Business Development, Spaceport America 10:00 a.m. (6) Artificial Intelligence Use in the Provision of Medical Services: Benefits and Ethical Concerns —Karen Carson, M.D., F.A.A.P.

- 11:00 a.m. (7) <u>Water Data Act Update</u> Stacy Timmons, Associate Director, Hydrogeology, Bureau of Geology and Mineral Resources, NM Tech
- 12:00 noon Public Comment**
- 12:15 p.m. **Adjourn**

*Committee members and legislative staff only.

**Members of the public may make virtual public comments during the public comment period of the meeting by following the instructions under the "Virtual Public Comment" section of the Science, Technology and Telecommunications Committee web page.

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

August 28-29, 2024 Joseph A. Fidel Center, Ballrooms B and C New Mexico Institute of Mining and Technology 1 Olive Lane Socorro

The third meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, on August 28, 2024 at 10:07 a.m. in the Joseph A. Fidel Center at the New Mexico Institute of Mining and Technology (NM Tech) in Socorro.

Present

Rep. Debra M. Sariñana, Chair Rep. Janelle Anyanonu Sen. William F. Burt (8/28) Rep. Joy Garratt Rep. Jason C. Harper (8/28) Rep. Charlotte Little Sen. Michael Padilla Sen. Harold Pope Sen. William P. Soules

Advisory Members

Rep. Willie D. Madrid Sen. Nancy Rodriguez

Absent

Sen. Siah Correa Hemphill, Vice Chair Sen. Craig W. Brandt Rep. Joshua N. Hernandez

Rep. Christine Chandler Rep. Gail Chasey Rep. Yanira Gurrola Rep. Jenifer Jones Sen. Bill B. O'Neill Sen. Shannon D. Pinto Rep. Larry R. Scott Rep. Linda Serrato

Guest Legislator

Sen. Crystal Brantley (8/29)

(Attendance dates are noted for those 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

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Wednesday, August 28

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

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

Welcome and the 5G Programs at NM Tech (10:15 a.m.)

David Manzano, director, Government Affairs, NM Tech, welcomed the committee and discussed the education and research activities of the university. Carlos R. Romero, associate vice president, Office of Research, NM Tech, described the 5G test environment that has been implemented by NM Tech in Playas. Nick Tenorio, senior research program manager, Institute for Complex Additive Systems Analysis, NM Tech, discussed the university research activities in Playas that support United States Department of Defense projects.

Overview of New Research at NM Tech (11:28 a.m.)

Mike Doyle, Ph.D., vice president for research, NM Tech; Stacy Timmons, Ph.D., associate director, Hydrogeology, Bureau of Geology and Mineral Resources, NM Tech; and Robert S. Balch, Ph.D., director, Petroleum Recovery Research Center, NM Tech, provided examples of research projects at the university. They discussed current partnerships and project funding needs. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=8/28/2024&Item Number=2.

Approval of Minutes (12:36 p.m.)

Upon a motion made and duly seconded, and without any objections, the committee approved the minutes of the July 29-30, 2024 meeting.

Supercomputing Challenge (1:10 p.m.)

Tom Bowles, Ph.D., member, Board of Directors, Supercomputing Challenge, described the challenge program and the achievements made in developing opportunities for students. He

made a funding request for \$200,000 to support the Supercomputing Challenge at NM Tech, starting in fiscal year 2026.

Space and Astronomy Research and Developments (1:28 p.m.)

Van Romero, Ph.D., vice president of special research programs, NM Tech, discussed projects at NM Tech exploring technologies used in space research, such as embedded sensors, additive manufacturing, satellite technologies and adaptive electro-optics. He also described the work being done at the Magdalena Ridge Observatory Interferometer. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=8/28/2024&Item Number=4.

Recess

The meeting recessed at 2:25 p.m., and the committee members toured the National Radio Astronomy Observatory.

Thursday, August 29

Reconvene

The meeting reconvened at 9:05 a.m.

Spaceport Authority Update (9:05 a.m.)

Scott McLaughlin, executive director, Spaceport Authority, and Francisco Pallares, Ph.D., director of business development, Spaceport Authority, provided an update on the current activities of Spaceport America, highlighting the capital improvements and budget requests. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=8/28/2024&Item Number=5.

Artificial Intelligence (AI) Use in the Provision of Medical Services: Benefits and Ethical Concerns (10:05 a.m.)

Karen Carson, M.D., F.A.A.P., described applications currently being used in health care that utilize AI technologies. She discussed treatment possibilities but also regulatory challenges that AI poses. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=8/28/2024&Item Number=6.

Water Data Act Update (11:03 a.m.)

Dr. Timmons provided an update of the data sharing practices developed as a result of the Water Data Act (2019). She also described the work of the Water Data Act implementation team. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=8/28/2024&Item Number=7.

Public Comment

There was no public comment.

Adjournment

There being no further business before the committee, the meeting adjourned at 11:47 a.m.

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

September 30-October 1, 2024 Science and Technology Park Rotunda 801 University Boulevard SE Albuquerque

Monday, September 30

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Chair
10:15 a.m.	(1)	 Welcome and Update from University of New Mexico (UNM) —David Hanson, Assistant Vice President for Research, UNM —Hengameh Raissy, Pharm.D., Research Professor and Interim Vice President for Research, Health Sciences Center, UNM
11:00 a.m.	(2)	 <u>Artificial Intelligence Literacy Programs</u> —Leo Lo, Dean, College of University Libraries and Learning Sciences, UNM
12:00 noon		Lunch
1:00 p.m.	(3)	 <u>Artificial Intelligence Ethics Issues</u> —Melanie Moses, Ph.D., Professor, Department of Computer Science, UNM
2:00 p.m.	(4)	 <u>Use of Artificial Intelligence in Patient Care and Medical Services</u> —Patricia W. Finn, M.D., Dean, UNM School of Medicine —David Perkins, M.D., Ph.D., Professor of Medicine, UNM School of Medicine
3:00 p.m.	(5)	 <u>Resource Impacts and Demands Anticipated from Artificial</u> <u>Intelligence</u> —Patrick Bridges, Director, Center for Advanced Research Computing, UNM —Manel Martínez-Ramón, Ph.D., Professor and King Felipe VI Endowed Chair, Department of Electrical and Computer Engineering, UNM

4:00 p.m.	(6)	 Quantum Computing Program Status Update —Ivan Deutsch, Director, Center for Quantum Information and Control, UNM —Jake Douglass, Business Development Lead, Sandia National Laboratories —Michael Rabin, Quantum Group Leader, Los Alamos National Laboratory
5:00 p.m.		Recess
Tuesday, O	ctober	<u>1</u>
9:00 a.m.	(7)	UNM Rainforest Innovations (UNMRI) Status Update —Lisa Kuuttila, Chief Executive Officer and Chief Economic Development Officer UNMRI

- -Rick Thomson, Founder, The Yar Group; Chief Executive Officer, Sandia Medical
- -John Stormont, Ph.D., P.E., Chief Technical Officer, TS-Nano
- 10:00 a.m. (8) State Investment in Technology Programs: Considerations and Methodologies for Creating a Successful Investment Program

 Jon Clark, State Investment Officer, State Investment Council
 Ryan Marie Decker, Policy and Capital Strategist, New Mexico Finance Authority
 Nora Sackett, Director, Office of Strategy, Science and Technology, Economic Development Department
- 12:00 noon Public Comment*
- 12:15 p.m. **Adjourn**

*Members of the public may make virtual public comments during the public comment period of the meeting by following the instructions under the "Virtual Public Comment" section of the Science, Technology and Telecommunications Committee <u>web page</u>.
MINUTES of the FOURTH MEETING of the SCIENCE, TECHNOLOGY AND TELECOMMUNICATIONS COMMITTEE

September 30-October 1, 2024 University of New Mexico Science and Technology Park Rotunda 801 University Boulevard SE Albuquerque

The fourth meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, on September 30, 2024 at 10:00 a.m. in the Science and Technology Park Rotunda at the University of New Mexico (UNM) in Albuquerque.

Present

Rep. Debra M. Sariñana, Chair Rep. Janelle Anyanonu Sen. Craig W. Brandt Rep. Joy Garratt Rep. Jason C. Harper Sen. Michael Padilla (9/30) Sen. Harold Pope Sen. William P. Soules

Advisory Members

Rep. Christine Chandler (9/30) Rep. Gail Chasey Rep. Yanira Gurrola Sen. Shannon D. Pinto (9/30) Sen. Nancy Rodriguez

Guest Legislators

Rep. Art De La Cruz Sen. Linda M. López (9/30)

(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 Sean Dolan, Staff Attorney, LCS Ralph Vincent, Systems Consultant, LCS

Absent

Sen. Siah Correa Hemphill, Vice Chair Sen. William F. Burt Rep. Joshua N. Hernandez Rep. Charlotte Little

Rep. Jenifer Jones Rep. Willie D. Madrid Sen. Bill B. O'Neill Rep. Larry R. Scott Rep. Linda Serrato

Minutes Approval

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.

Monday, September 30

Welcome and Introductions (10:00 a.m.)

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

Welcome and Update from UNM (10:05 a.m.)

Hengameh Raissy, Pharm.D., research professor and interim vice president for research, Health Sciences Center, UNM, discussed the emphasis that UNM places on research, particularly in the health sciences, and explained how state funding assists the university in obtaining grants. David Hanson, Ph.D., assistant vice president for research, UNM, described the economic aspects of UNM research and related how those efforts benefit New Mexico. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=1.

Artificial Intelligence (AI) Literacy Programs (11:03 a.m.)

Leo Lo, Ed.D., dean, College of University Libraries and Learning Sciences, UNM, discussed the societal, ethical and practical implications of AI and the need for more global understanding of those implications. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=2.

AI Ethics Issues (1:03 p.m.)

Melanie Moses, Ph.D., professor, Department of Computer Science, UNM, discussed the AI opportunities in health care, climate and environmental research and material science. She

discussed the potential solutions that AI has made possible but also highlighted challenges posed by AI. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=3.

Use of AI in Patient Care and Medical Services (1:56 p.m.)

Patricia W. Finn, M.D., dean, UNM School of Medicine, and David Perkins, M.D., Ph.D., professor of medicine, UNM School of Medicine, discussed the shortage of health care professionals in New Mexico and how AI could make these professionals more effective and efficient. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=4

Resource Impacts and Demands Anticipated from AI (3:00 p.m.)

Patrick Bridges, Ph.D., director, Center for Advanced Research Computing, UNM, discussed the energy and water requirements of common data centers and the ongoing research to provide more efficient power and cooling. Manel Martínez-Ramón, Ph.D., professor and King Felipe VI endowed chair, Department of Electrical and Computer Engineering, UNM, discussed research at UNM that ensures AI growth in a sustainable environment. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=5.

Quantum Computing Program Status Update (4:05 p.m.)

Ivan Deutsch, Ph.D., director, Center for Quantum Information and Control, UNM, described the objective of UNM's Quantum New Mexico Institute to make New Mexico a worldclass quantum technology ecosystem in collaboration with Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL). Dr. Hanson; Jake Douglass, business development lead, SNL; and Michael Rabin, Ph.D., Quantum Group leader, LANL, discussed the current collaborations in quantum research and highlighted the need to establish a New Mexico Quantum Campus. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=6.

Recess

The meeting recessed at 5:07 p.m.

Tuesday, October 1

Reconvene

The meeting reconvened at 9:10 a.m.

UNM Rainforest Innovations (UNMRI) Status Update (9:10 a.m.)

Lisa Kuuttila, chief executive officer and chief economic development officer, UNMRI, described the UNMRI organization and provided an update of the activities at UNMRI. Rick Thomson, founder, The Yar Group, and chief executive officer, Sandia Medical; John Stormont, Ph.D., P.E., chief technical officer, TS-Nano; and Thomas J. Stephenson, chief executive officer, Pajarito Powder, described their experiences working with UNMRI and the start-up companies that were created with the help of UNMRI. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=7.

State Investment in Technology Programs: Considerations and Methodologies for Creating a Successful Investment Program (10:21 a.m.)

Jon Clark, state investment officer, State Investment Council (SIC), described the SIC's strategies of using the permanent and endowment funds to invest in private equity firms and diversify the New Mexico economy. Ryan Marie Decker, policy and capital strategist, New Mexico Finance Authority (NMFA), described the NMFA's venture capital program that provides investments in private equity funds and New Mexico businesses. Nora Sackett, director, Office of Strategy, Science and Technology (OSST), Economic Development Department, described the OSST's mission to promote the innovation infrastructure in New Mexico by providing grants to small businesses focusing on science and technology. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=9/30/2024&Item Number=8.

Public Comment (12:18 p.m.)

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

Adjournment

There being no further business before the committee, the meeting adjourned at 12:20 p.m.

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

October 31-November 1, 2024 State Capitol, Room 309 Santa Fe

Thursday, October 31

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Chair
10:15 a.m.	(1)	Full Buildout of Electric Vehicle Charging Infrastructure: IdentifyingPieces of the Puzzle—Deborah Kapiloff, Transportation Electrification Policy Advisor, Western Resources Advocates
11:00 a.m.	(2)	Public Service Company of New Mexico — Projected Needs forElectricity Infrastructure and Demand Capacity for Electric Vehicles—John Williamson, Manager, Transportation Electrification, Public Service Company of New Mexico
12:00 noon		Lunch
1:00 p.m.	(3)	 Building Charging Station Routes —Andrew Gonzales, Deputy Director, Office of Special Projects, Department of Transportation (DOT) —April Naranjo, Program Manager, Office of Special Projects, DOT
2:00 p.m.	(4)	Challenges Facing Installation and Infrastructure Contractors —Craig Shaw, Managing Partner, Bulldog Energy Solutions, LLC
2:45 p.m.	(5)	The Impact of the Evolution of Electrical Vehicle Charging 1.0 to Electrical Vehicle Charging 2.0 —Stuart Rose, Ph.D., Founder, Go-Station, Inc.
3:30 p.m.	(6)	New Mexico Alternative Fuels Strategies: Making the Most of the Federal Tax Credit Programs —Rebecca "Puck" Stair, Director, Energy Conservation and Management Division, Energy, Minerals and Natural Resources Department
4:45 p.m.		Recess

Friday, November 1

9:00 a.m. (7) **Electric Vehicle Charging and Energy Management at Multifamily Buildings** -Ben Brint, Policy Manager, SWTCH 10:00 a.m. **Proposed Electric School Bus Legislation** (8) -Giovanna Rossi, President, Collective Action Strategies; New Mexico Consultant, Moms Clean Air Force —Shelley Mann-Lev, Executive Director, Healthy Climate New Mexico —Genie Stevens, Global Warming Express -Diana Van Vleet, Director, National Advocacy, American Lung Association 12:00 noon **Public Comment***

12:15 p.m. **Adjourn**

*Members of the public may make virtual public comments during the public comment period of the meeting by following the instructions under the "Virtual Public Comment" section of the Science, Technology and Telecommunications Committee web page.

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

October 31-November 1, 2024 State Capitol, Room 309 Santa Fe

The fifth meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, at 10:02 a.m. on October 31, 2024 in Room 309 of the State Capitol in Santa Fe.

Present

Rep. Debra M. Sariñana, Chair Rep. Janelle Anyanonu Rep. Joy Garratt Rep. Jason C. Harper (10/31) Rep. Charlotte Little (10/31) Sen. Harold Pope (10/31) Sen. William P. Soules

Advisory Members

Rep. Christine Chandler Rep. Gail Chasey Sen. Shannon Pinto (10/31) Rep. Larry R. Scott (10/31)

Absent

Sen. Siah Correa Hemphill, Vice Chair Sen. Craig W. Brandt Sen. William F. Burt Rep. Joshua N. Hernandez Sen. Michael Padilla

Rep. Yanira Gurrola Rep. Jenifer Jones Rep. Willie D. Madrid Sen. Bill B. O'Neill Sen. Nancy Rodriguez Rep. Linda Serrato

Guest Legislators

Rep. Anthony Allison (10/31) Rep. D. Wonda Johnson (10/31) Rep. Tara L. Lujan (11/1) Rep. James G. Townsend (11/1)

(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

The minutes for this meeting have not been approved by the committee.

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 31

Welcome and Introductions (10:02 a.m.)

Representative Sariñana welcomed everyone, and committee members introduced themselves.

Full Buildout of Electric Vehicle Charging Infrastructure: Identifying Pieces of the Puzzle (10:08 a.m.)

Deborah Kapiloff, transportation electrification policy advisor, Western Resources Advocates, provided a presentation on electric vehicle charging infrastructure. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=1.

Public Service Company of New Mexico (PNM) — Projected Needs for Electricity Infrastructure and Demand Capacity for Electric Vehicles (11:17 a.m.)

John Williamson, manager, Transportation Electrification, PNM, provided a presentation on PNM's transportation electrification program and efforts to manage electricity needs relating to electric vehicle charging. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=2.

Building Charging Station Routes (1:14 p.m.)

Andrew Gonzales, deputy director, Office of Special Projects, Department of Transportation (DOT), and April Naranjo, program manager, Office of Special Projects, DOT, provided a presentation on the DOT's efforts to expand electric vehicle infrastructure across the state. The presentation materials can be found here: https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=3.

Challenges Facing Installation and Infrastructure Contractors (2:08 p.m.)

Craig Shaw, managing partner, Bulldog Energy Solutions, LLC, provided a presentation on issues faced by private contractors with installing residential and commercial electric vehicle chargers. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=4.

The Impact of the Evolution of Electrical Vehicle Charging 1.0 to Electrical Vehicle Charging 2.0 (2:36 p.m.)

Stuart Rose, Ph.D., founder, Go-Station, Inc., provided a presentation on Go-Station, Inc., and the future of electric vehicle charging. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=5.

Recess

The meeting recessed at 3:49 p.m.

Friday, November 1

Reconvene

The meeting reconvened at 9:04 a.m.

Electric Vehicle Charging and Energy Management at Multifamily Buildings (9:05 a.m.)

Ben Brint, policy manager, SWTCH, provided a presentation on electric vehicle charging and energy management at multifamily buildings. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite mNumber=7.

Proposed Electric School Bus Legislation (10:01 a.m.)

Giovanna Rossi, president, Collective Action Strategies, and New Mexico consultant, Moms Clean Air Force; Shelley Mann-Lev, executive director, Healthy Climate New Mexico; Genie Stevens, Global Warming Express; and Diana Van Vleet, director, National Advocacy, American Lung Association, provided a presentation on proposed electric school bus legislation that their respective groups are asking the legislature to consider. Their presentation explained various issues prompting the need for this legislation, including health and environmental concerns. The presentation materials can be found here:

$\frac{https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=10/31/2024&Ite}{mNumber=8}.$

Public Comment

There was no public comment.

Adjournment

There being no further business before the committee, the meeting adjourned at 11:10 a.m.

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

November 25-26, 2024 State Capitol, Room 317 Santa Fe

Monday, November 25

10:00 a.m.		Call to Order and Introductions —Representative Debra M. Sariñana, Chair
10:05 a.m.	(1)	 <u>Next Generation Challenges Facing 911 County Affiliates</u> —Julian Sena, Chair, Geographic Information Systems (GIS) Affiliate, New Mexico Association of Counties; Supervisor, GIS Division, Santa Fe County —Nicole Brown, Vice Chair, 911 Directors Affiliate, New Mexico Association of Counties; Director, San Juan County Communications Authority
11:00 a.m.	(2)	 Los Alamos National Laboratory (LANL) Status Update —Kathy Keith, Director, Community Partnerships Office, LANL —Angela Mielke, Executive Officer, Deputy Director's Office for Science, Technology and Engineering, LANL
12:00 noon		Lunch
1:00 p.m.	(3)	 Proposal to Facilitate Broadband Growth —Matejka Santillanes, Executive Director, New Mexico Exchange Carrier Group —Jay Santillanes, Lobbyist, New Mexico Exchange Carrier Group
2:00 p.m.	(4)	Office of Broadband Access and Expansion (OBAE) —Drew Lovelace, Acting Director, OBAE
3:00 p.m.	(5)	 Sandia National Laboratories (SNL) —David Gibson, Deputy Laboratories Director and Chief Operating Officer, SNL

4:00 p.m.	(6)	Technology Collaboration for Quality Jobs
		—Sherman McCorkle, Chair, Chief Executive Officer and Co-Founder,
		Sandia Science and Technology Park Development Corporation
		-Francis Bee, Executive Director, Gallup Business Improvement District

5:00 p.m. Recess

Tuesday, November 26

9:00 a.m.	(7)	 Science, Technology, Engineering and Mathematics Innovation <u>Network</u> —Gwen Perea Warniment, Ph.D., President and Chief Executive Officer, LANL Foundation
10:00 a.m.	(8)	Proposal for Internet Privacy and Safety —Representative Pamelya Herndon
11:00 a.m.	(9)	Consideration of Legislation for Endorsement —Mark Edwards, Bill Drafter, Legislative Council Service
12:00 noon		Public Comment*
12:15 p.m.		Adjourn

*Members of the public may make virtual public comments during the public comment period of the meeting by following the instructions under the "Virtual Public Comment" section of the Science, Technology and Telecommunications Committee web page.

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

November 25-26, 2024 State Capitol, Room 317 Santa Fe

The sixth meeting of the Science, Technology and Telecommunications Committee was called to order by Representative Debra M. Sariñana, chair, on November 25, 2024 at 10:09 a.m. in Room 317 of the State Capitol in Santa Fe.

Present

Rep. Debra M. Sariñana, Chair Sen. Siah Correa Hemphill, Vice Chair Rep. Janelle Anyanonu Sen. Craig W. Brandt Rep. Joy Garratt Rep. Jason C. Harper Rep. Charlotte Little Sen. Harold Pope

Advisory Members

Rep. Christine Chandler (11/25) Sen. Shannon D. Pinto Sen. Nancy Rodriguez

Absent

Sen. William F. Burt Rep. Joshua N. Hernandez Sen. Michael Padilla Sen. William P. Soules

Rep. Gail Chasey Rep. Yanira Gurrola Rep. Jenifer Jones Rep. Willie D. Madrid Sen. Bill B. O'Neill Rep. Larry R. Scott Rep. Linda Serrato

Guests

Rep. Art De La Cruz (11/26) Rep. Pamelya Herndon

(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 Rebecca Griego, Records Officer, 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.

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.

Monday, November 25

Welcome and Introductions (10:09 a.m.)

Representative Sariñana welcomed everyone, and committee members introduced themselves.

Next Generation Challenges Facing 911 County Affiliates (10:12 a.m.)

Julian Sena, chair, Geographic Information Systems (GIS) Affiliate, New Mexico Association of Counties, and supervisor, GIS Division, Santa Fe County, and Nicole Brown, vice chair, 911 Directors Affiliate, New Mexico Association of Counties, and director, San Juan County Communications Authority, provided a presentation on challenges facing 911 County Affiliates. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=1.

Los Alamos National Laboratory (LANL) Status Update (11:15 a.m.)

Kathy Keith, director, Community Partnerships Office, LANL, and Angela Mielke, executive officer, Deputy Director's Office for Science, Technology and Engineering, LANL, provided a presentation on developments at LANL. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=2.

Proposal to Facilitate Broadband Growth (1:03 p.m.)

Matejka Santillanes, executive director, New Mexico Exchange Carrier Group, and Jay Santillanes, lobbyist, New Mexico Exchange Carrier Group, presented a proposal aimed at facilitating broadband growth. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=3.

Office of Broadband Access and Expansion (OBAE) (2:00 p.m.)

Drew Lovelace, acting director, OBAE, provided a presentation on the OBAE. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=4.

Sandia National Laboratories (SNL) (2:41 p.m.)

David Gibson, deputy laboratories director and chief operating officer, SNL, provided a presentation on SNL. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=5.

Technology Collaboration for Quality Jobs (3:36 p.m.)

Sherman McCorkle, chair, chief executive officer and co-founder, Sandia Science and Technology Park Development Corporation, and Francis Bee, executive director, Gallup Business Improvement District, provided a presentation on the Technology Research Collaborative. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=6.

Tuesday, November 26

Reconvene

The meeting reconvened at 9:12 a.m.

Science, Technology, Engineering and Mathematics Innovation Network (9:15 a.m.)

Gwen Perea Warniment, Ph.D., president and chief executive officer, LANL Foundation, provided a presentation on the Science, Technology, Engineering and Mathematics Innovation Network.

Proposal for Internet Privacy and Safety (10:26 a.m.)

Representative Herndon presented a legislative proposal on internet privacy and safety. The presentation materials can be found here:

https://www.nmlegis.gov/Committee/Handouts?CommitteeCode=STTC&Date=11/25/2024&Ite mNumber=8.

Public Comment

There was no public comment.

Adjournment

There being no further business before the committee, the meeting adjourned at 11:30 a.m.



Legislative Council Service Santa Fe, New Mexico