



LOS ALAMOS

# County of Los Alamos

1000 Central Avenue  
Los Alamos, NM 87544

## BCC Agenda - Final

### Environmental Sustainability Board

*Joseph Chandler, Chair; Hermann Geppert, Vice-Chair; Shannon Blair; Armand Groffman; Erik Loechell; KokHeong McNaughton, and Dina Pesenson*

---

Thursday, April 18, 2024

5:30 PM

1000 Central Avenue, Council Chambers and  
Zoom

---

**Meeting Canceled - No Quorum**

**NOTE:** This meeting is in person and open to the public. However, for convenience, the following Zoom meeting link and/or telephone call in numbers may be used for public viewing and participation:

Please click this URL to join. <https://us02web.zoom.us/j/85656951187>

Or

One tap mobile:

+17193594580,,85656951187# US

+16694449171,,85656951187# US

#### 1. CALL TO ORDER - ROLL CALL

#### 2. PUBLIC COMMENT

*This section of the agenda is reserved for comments from the public on items that are not otherwise included in this agenda.*

#### 3. APPROVAL OF AGENDA

#### 4. APPROVAL OF MINUTES

[18695-24](#)

Approval of the March 24, 2024, Environmental Sustainability Board Minutes

#### **...Recommended Action Motion**

**I move that the Environmental Sustainability Board approve the March 24, 2024, minutes as presented.**

**Or**

**I move that the Environmental Sustainability Board approve the March 24, 2024, minutes as amended.**

**Presenters:**

Angelica Gurule

**Attachments:**      [A - ESB Minutes March 21, 2024](#)

## 5. BOARD BUSINESS

[18707-24](#)      Continue to Discuss and Revise Communication Management Plan to Maximize Public Involvement

**Presenters:**      Joseph Chandler

**Attachments:**      [B - DRAFT ESB Communication Management Plan](#)

[18708-24](#)      The Challenges of Energy, Climate and Sustainability: A Look at Macro Trends and Data

**Presenters:**      Joseph Chandler

**Attachments:**      [C - Examining the Challenges of Sustainability by Joseph Chandler](#)  
[D- Environmental Sustainability Definition](#)

[18709-24](#)      Debrief and Discuss Community Workshop for Climate Action Plan

**Presenters:**      Joseph Chandler

## 6. REPORTS

### A. Chair's Report - Joseph Chandler

### B. Board Member Reports

- 1). Board of Public Utilities - Armand Groffman/Erik Loechell
- 2). Transportation Board - Hermann Geppert/Erik Loechell
- 3). Parks and Recreation Board - Shannon Blair
- 4). County Council Liaison - Randall Ryti

### C. Team Reports

- 1). Bee City Team/Seed Library - KokHeong McNaughton
- 2). Los Alamos Sustainability Alliance - Angelica Gurule
- 3). Baling Twine Working Group - Shannon Blair

## 7. STAFF REPORT

[18710-24](#)      Sustainability Manager Updates

**Presenters:**      Angelica Gurule

**Attachments:**      [E - Residential Sustainability Report - March 2024\\_NEW](#)

## **8. PREVIEW OF UPCOMING AGENDA ITEMS**

**-Bear Cart Update**

**-Carbon Capture Presentation**

## **9. ADJOURNMENT**

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 662-8040 at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Community Services Administration Office at 662-8163 if a summary or other type of accessible format is needed.



# County of Los Alamos

## Staff Report

April 18, 2024

Los Alamos, NM 87544  
www.losalamosnm.us

---

**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Angelica Gurule

**Legislative File:** 18695-24

---

**.Title**

Approval of the March 24, 2024, Environmental Sustainability Board Minutes

**...Recommended Action Motion**

I move that the Environmental Sustainability Board approve the March 24, 2024, minutes as presented.

Or

I move that the Environmental Sustainability Board approve the March 24, 2024, minutes as amended.

**.Body**

The ESB will review and approve the March 24, 2024, Environmental Sustainability Board Minutes.

**.Attachments**

A - Draft ESB Minutes March 24, 2024



# County of Los Alamos

## BCC Meeting Minutes - Draft

### Environmental Sustainability Board

1000 Central Avenue  
Los Alamos, NM 87544

*Joseph Chandler, Chair; Hermann Geppert, Vice-Chair; Shannon Blair; Armand Groffman;  
Erik Loechell; KokHeong McNaughton, and Dina Pesenson*

---

Thursday, March 21, 2024

5:30 PM

1000 Central Avenue, Council Chambers  
and Zoom

---

**NOTE:** This meeting is in person and open to the public. However, for convenience, the following Zoom meeting link and/or telephone call in numbers may be used for public viewing and participation:

Please click this URL to join. <https://us02web.zoom.us/j/85656951187>

Or

One tap mobile:

+17193594580,,85656951187# US

+16694449171,,85656951187# US

Sustainability Manager Angelica Gurule

#### 1. CALL TO ORDER - ROLL CALL

Member Groffman absent

#### 2. PUBLIC COMMENT

#### 3. APPROVAL OF AGENDA

Motion to approve agenda by Member Geppert, second by Member Loechell - The motion passed unanimously.

#### 4. APPROVAL OF MINUTES

Motion to approve by Member Loechell, second by Member Blair the motion passed unanimously.

[18593-24](#)

Approval of the February 15, 2024, Environmental Sustainability Board Minutes

Presenters: Joseph Chandler

#### 5. BOARD BUSINESS

[18594-24](#)

Discuss and Develop Communication Management Plan to Maximize Public Involvement

Presenters: Joseph Chandler

Sustainability Manager Angelica Gurule reported that during the work planning session one of the priorities was to develop and implement a communication management plan, including a method for the boards communication frequency message, and who would be the responsible board member and who would be the audience. Ms. Gurule presented a draft plan that is open for the ESB's input.

See attached Communication Plan

[18595-24](#)

Debrief on Climate Action Presentation to County Council

Presenters: Angelica Gurule

Sustainability Manager Angelica Gurule reported that Cascadia gave an excellent presentation to the County Council on March 5th. It was an update on the Greenhouse Gas inventory for the community and discussion on different analyses they have done to start developing the different actions the County could take to reduce greenhouse gas emissions and setting up a potential target. Feedback from Council was that they are more in support of ambitious target and policies, but would like to consider the economics.

[18596-24](#)

Establish Baling Twine Working Group

Presenters: Shannon Blair

The ESB moved to establish the Bailing Twine working Group for the months beginning March 22, 2024 and ending June 22, 2024; and appoint ESB member Blair as lead; and request the lead to report findings to the ESB on or before the July 18, 2024 meeting.

Presenters: Shannon Blair

## 6. REPORTS

### A. Chair's Report - Joseph Chandler

Chair Chandler encouraged everyone to get involved in all the groups the ESB is starting and, also encouraged everyone to recruit new people to the board.

### B. Board Member Reports

#### 1). Board of Public Utilities - Armand Groffman/Erik Loechell

Member Groffman was absent, however he provided the following report to Sustainability Angelica Gurule to share:

**LAC BPU Manager's Report**

AC has caught up with the gas recovery fund (sunset utility fund).

New employee orientation offered this month

Chromium plume letter from the NMED gives permission for N3B/LANL to start-up injecting treated water to the aquifer to control plume migration. LAC is drafting a response letter to the regulatory authority (NMED HWB).

LAC is in a start-up phase of the Jemez Mountain Protection Project (pipe line to Pajarito Mountain ski area) with \$900k from the NM Capital Outlay grant to update the electrical transmission line. LAC fire department is investigating structures to be located a Camp May to house fire protection equipment.

LAC is preparing to pay their obligation of \$0.5M to New Scale Carbon Free project agreed upon at the signing of the contract.

NMED HWB has accepted closure of environmentally restored solid waste management units along DP road. The land is now able to be transferred to LAC to be used for development. Conversations with the Nevada geothermal project with power output of 35 MW is ongoing. LAC's share would be 4 MW.

**Fox Tail Flats Update-**

- This is a solar panel/Battery electricity storage system (BESS) scheme
- LAC is ready to sign agreement with the Navajo (Dene) Tribe
- It will be 2-years until power is available. Weather and logistic impacts may impact the timeline
- LAC is the sole customer and can sell spare power to other entities
- Agreement between Fox Tail Flats and BPU passed the Board by a vote of 4-1.

**Los Alamos County Managers Report (Steve Lynne)**

Steve Lynne is retiring after 28 years of service. Steve waxed eloquently about his experience and how inspirational his time has been working with LAC talented staff.

All consent items were approved without debate.

- 2). Transportation Board - Hermann Geppert/Erik Loechell

Vice-Chair Geppert reported that there was public comment between Nectar and 19th Street that it is not in good shape can County do something about. Presentation on road renewal on Bathtub, Peach and Nectar Street it is in the 45-50% design phase, needed community comments by March 14, 2024, there will be another presentation at the Historical Preservation Board Meeting on April 3, 2024 and bids will start in May. Another discussion was medium design standards along Canyon and Diamond will be changed for better water sustainability, lower maintenance, and it is very dangerous to maintain those medians on those streets. Also, presentation on "Dial a Ride", where you can request transportation in Los Alamos, discussing expanding the service.

3). Parks and Recreation Board - Shannon Blair

None

4). County Council Liaison - Randall Ryti

Council Ryti reported that while in Phoenix he visited a butterfly exhibit and would share some photos. Commented that the communication presentation was very interesting and liked the idea of encouraging friends to attend meetings. Suggested designated someone like the chair for article review for meeting recap. Councilor Ryti is also the Council liaison to PRB and gave ESB an update. Mentioned that at the Parks and Recs Board meeting started with looking at their charter is to gather information from the community about what we like to see in the parks. PRB can also bring forward options to County Council to consider. Commented that the format and the schedule for the work plan has changed to a calendar year format and that PRB is more complex because they have three working groups and discussion on their workplan will continue at next month's meeting, there was also several updates on various projects.

C. Team Reports

1). Bee City Team/Seed Library - KokHeong McNaughton



Member McNaughton reported the following;

1) Los Alamos County is officially certified as a Bee City Affiliate of Bee City USA as of 2/15. Xerces will be sending us a box of materials for publicity including signage that Parks and Rec will install at their chosen location. Web page is being developed which will have links to many resources. We don't have to submit an annual report until end of Feb 2026.

2) Bee City committee plans to meet monthly and the meeting from here on must be opened to the public as per Xerces requirements. We'll be identifying key partners and contact persons from local and surrounding organizations to receive email notifications of these meetings. They will be able to participate in future planning because our work will impact them. General notices will go out via local news outlets. Next mtg on Tuesday March 19 @4pm @PEEC.

3) We have ordered 60 trays of pollinators plants from Santa Ana nursery. 20 trays each for advance, intermediate, and beginner levels of gardening experience. They expect us to save seeds from many of these plants and to return seeds back to them for future planting. These won't be ready till September for fall planting. We'll offer a workshop prior to given these plants away.

4) Meanwhile many groups and individuals are ready and eager to start planting. So we're asking local gardeners to dig up volunteer seedlings from a small and manageable list of deer resistant, native plants that we can give out on Earth Day. These are very easy to start from seeds now or propagated. A kindergarten class can grow them in a box outside their classroom, for example.

5) Parks & rec and Open Space have identified a section of county land that we can begin converting into a pollinator habitat demonstration garden. This is the land behind our Extension Office along Bathtub Row flanked by the meandering walking path on one side and the Senior Center fences on the other side. It's about 20,000 sq ft. The project is expected to take 5 years. We are inviting the community to join us for a ground breaking workparty on Saturday, April 6th from 8 to noon to weed and prepare about 1/5 of the ground for a May planting. Publicity went out the middle of March.

6) One final piece of good news to share -- Taos has shown interest in becoming a Bee City also.

#### Community Seed Library Report

The Community Seed Swap 1st anniversary party on March 2nd was well attended. We estimate about 65 in Los Alamos and a bit less in WR. We

served BD cake, helped patrons find and check out seeds, engaged children in making crepe paper flowers and games of mancala using assorted beans, and held a seed-identification contest. Data for one year of operation – 225 patrons checked out about 1500 seed packets. Does not include PEEC.

2). Los Alamos Sustainability Alliance

- Developing climate action video
- Preparing for Earth Day

7. STAFF REPORT

[18598-24](#) Sustainability Manager Updates

Presenters: Angelica Gurule

8. PREVIEW OF UPCOMING AGENDA ITEMS

- Bear Art Update
- Carbon Capture
- Energy Transition Global Macro Scale

9. ADJOURNMENT

7:23 P.M.

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 662-8040 at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Community Services Administration Office at 662-8163 if a summary or other type of accessible format is needed.

	April	May	June	July	August	September	October
LARES Action	Fun Jar Activity at Earth Day Booth (Educational) with handout	Fun Jar Activity (Educational) with handout					
CAP Action	CAP: Community Workshop (Inform & Educate)		CAP Invite Community to attend Council Meeting	CAP Request input on draft plan	CAP Request input on draft plan		Invite Community to attend Council for
Event	Earth Day Booth Flyer with roadmap for CAP and opportunities for ESB Meeting	PEEC Water Festival ESB Meeting	Farmer's Market ESB Meeting	Science Fest ESB Meeting	County Fair ESB Meeting	Clean Up LA Day ESB Meeting	ESB Meeting
Social Media							
	Pre-mtg: Reel inviting people to the Workshop /	Are you willing to be a participant in the reel demonstrating how to use the calc.	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	
Social Media (Tik Tok & Instagram)	Pre/Post - ESB Meetings, Testimonial Reels	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings
Traditional Media (LADP/Youtube or County Recording that can be posted on social media)	Post-Community Workshop Interview with ESB Member (Shannon Blair/Joe Chandler)						
	Post ESB Mtg Interview (Dina/Erik)	Post ESB Mtg Interview (KokHeong)	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview
Editorial (Post ESB Meeting) What was covered, what is coming up. Perspectives on agenda items.	Dina Pesenson	Shannon Blair cool climate calculator; UC Berkley	Joseph Chandler				
Online Resources							

Take out until  
December 2024



# County of Los Alamos

## Staff Report

April 18, 2024

Los Alamos, NM 87544  
www.losalamosnm.us

---

**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Joseph Chandler

**Legislative File:** 18707-24

---

### **Title**

Continue to Discuss and Revise Communication Management Plan to Maximize Public Involvement

### **Body**

One of ESB's priorities as state in the workplan is to develop and implement a communication management plan including method of communication, frequency, message, responsible board member, and stakeholders. The Board will continue to review this plan and revise as needed.

### **Attachments**

B - Draft Communication Management Plan

	April	Status	May	June	July	August	September	October	November	December
Environmental Days to Consider	Earth Day ( April 22nd) / Arbor Day (April 26)		National Bike Month /No Mow May / Bike to Work Day (May 17) / World Bee Day (May 20) /International Compost Awareness Week (May 5th -11th)	National Trails Day (June 1) / World Environment Day (June 5) / National Electricity Day (June 15th) /National Dump the Pump Day (June 20th) / National Upcycling Day (June 24th)	Global Energy Independence Day (July 10) / World Conservation Day (July 28) / Plastic Free July	National Water Quality Month / Mountain Day (August 11th)	National Organic Month/ World Ozone Day (September 16) / National Clean Up Day (September 16) /World Car Free Day (Sept 22)/Zero Waste Week (Sept 2 -6)	International Walk to School Month / Change a Light Day (October 6th)/ Energy Efficiency Day (October 2) / World Food Day (October 16)/International Day of Climate Action (October 24)	National Recycling Day/America Recycles Day (November 15)	Wildlife Conservation Day (Dec 4) / World Soil Day (Dec 5) / International Mountain Day (Dec 11)
Activity	Fun Jar Activity at Earth Day Booth (Educational) with handout		Fun Jar Activity (Educational) with handout							
Event 1	CAP: Community Workshop (Inform & Educate)	Done		CAP Invite Community to attend Council Meeting	CAP Request input on draft plan	CAP Request input on draft plan		Invite Community to attend Council for Draft CAP Presentation		
Event 2	Earth Day Booth Flyer with roadmap for CAP and opportunities for		PEEC Water Festival/Farmer's Market	Farmer's Market	Science Fest/Farmer's Market	County Fair/Farmer's Market	Clean Up LA Day			
Event 3	Earth Day at LAC									
Event 4	Leadership Los Alamos Day									
Event 5	Mountain Schools Recycle Event									
Recurring Event	ESB Meeting		ESB Meeting	ESB Meeting	ESB Meeting	ESB Meeting	ESB Meeting	ESB Meeting	ESB Meeting	ESB Meeting
Social Media	Pre-mtg: Reel inviting people to the Workshop /		Are you willing to be a participant in the reel demonstrating how to use the calc.	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members	Pre/Post event reels with Board members to promote education of these elements including recruiting more board members			
Social Media (Tik Tok & Instagram)	Pre/Post - ESB Meetings, Testimonial Reels		Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings	Pre/Post - ESB Meetings		
Traditional/Media outlets (LADP/LA Reporter/BoomTown/ Youtube or County Recording that can be posted on social media)	Post-Community Workshop Interview with ESB Member (Shannon Blair/Joe Chandler)	Done								
	Post ESB Mtg Interview (Dina/Erik)		Post ESB Mtg Interview (KokHeong)	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview	Post ESB Mtg Interview		
Editorial (Post ESB Meeting) What was covered, what is coming up. Perspectives on agenda items.				DRAFT						
	Dina Pesenson		Shannon Blair	Joseph Chandler						
Online Resources			cool climate calculator: UC Berkley							



# County of Los Alamos

## Staff Report

April 18, 2024

Los Alamos, NM 87544  
www.losalamosnm.us

---

**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Joseph Chandler

**Legislative File:** 18708-24

---

### **Title**

The Challenges of Energy, Climate and Sustainability: A Look at Macro Trends and Data

### **Body**

ESB Chair, Joseph Chandler will discuss the complexities and interconnectedness of energy, climate and sustainability. He will delve into macro trends and data.

### **..Attachment**

C - The Challenges of Energy, Climate and Sustainability: A Look at Macro Trends and Data by Joseph Chandler

D - ESB's Definition of Environmental Sustainability



# The Challenges of Energy, Climate & Sustainability

## A Look at Macro Trends and Data

---

LOS ALAMOS ENVIRONMENTAL  
SUSTAINABILITY BOARD

APRIL 18, 2024

# Session outline

---

INTRODUCTION	AFFORDABLE, CLEAN ENERGY	CLIMATE ACTION	TAKEAWAYS
What is sustainability?			
Why is it important?			
Who do you trust?			



# What is sustainability?

---

It is up to us to decide...

Thought exercise to be conducted with people in attendance via active participation.

- Write your definition of sustainability on the provided piece of paper

# Why is a definition important?

The definition of sustainable says\* -

- 1) An act that is able to be maintained, at a certain rate or level, ***over a period of time***.
- 2) The ability of an action to be upheld and defended.

## The United Nations sustainability goals<sup>1</sup>:

- |                                    |  |
|------------------------------------|--|
| 1. No poverty                      | 9. Industry innovation and infrastructure  |
| 2. Zero hunger                     | 10. Reduced inequalities                   |
| 3. Good health and well being      | 11. Sustainable cities and communities     |
| 4. Quality education               | 12. Responsible consumption and production |
| 5. Gender equality                 | 13. Climate action                         |
| 6. Clean water and sanitation      | 14. Life below water                       |
| 7. Affordable, clean energy        | 15. Life on Land                           |
| 8. Decent work and economic growth | 16. Peace, Justice and strong institutions |
|                                    | 17. Partnerships for the goals             |

***Are these  
obtainable?***

***Are these  
sustainable?***



\*= compiled from looking across Merriam-Webster Dictionary, Google search results, Cambridge Dictionary and Investopedia definitions

<sup>1</sup>= <https://sdgs.un.org/goals>

# Who do you trust?

---



There is a lot of information from a lot of different sources -

Is anyone right? Is anyone helpful?



Are we listening to the full story or just what we want to hear?



*Which ones make  
the most  
difference?*

## 10 ways to fight the climate crisis by the United Nations<sup>1</sup>:

1. Spread the word
2. Keep up political pressure
3. Transform your transport
4. Rein in your power use
5. Tweak your diet
6. Shop local and buy sustainable
7. Don't waste food
8. Dress smart
9. Plant Trees
10. Focus on planet friendly investments

*They sound fairly  
common sense,  
why is it so hard?*



**United  
Nations**



**WSJ**



**Bloomberg**



<sup>1</sup>= <https://www.unep.org/news-and-stories/story/10-ways-you-can-help-fight-climate-crisis>

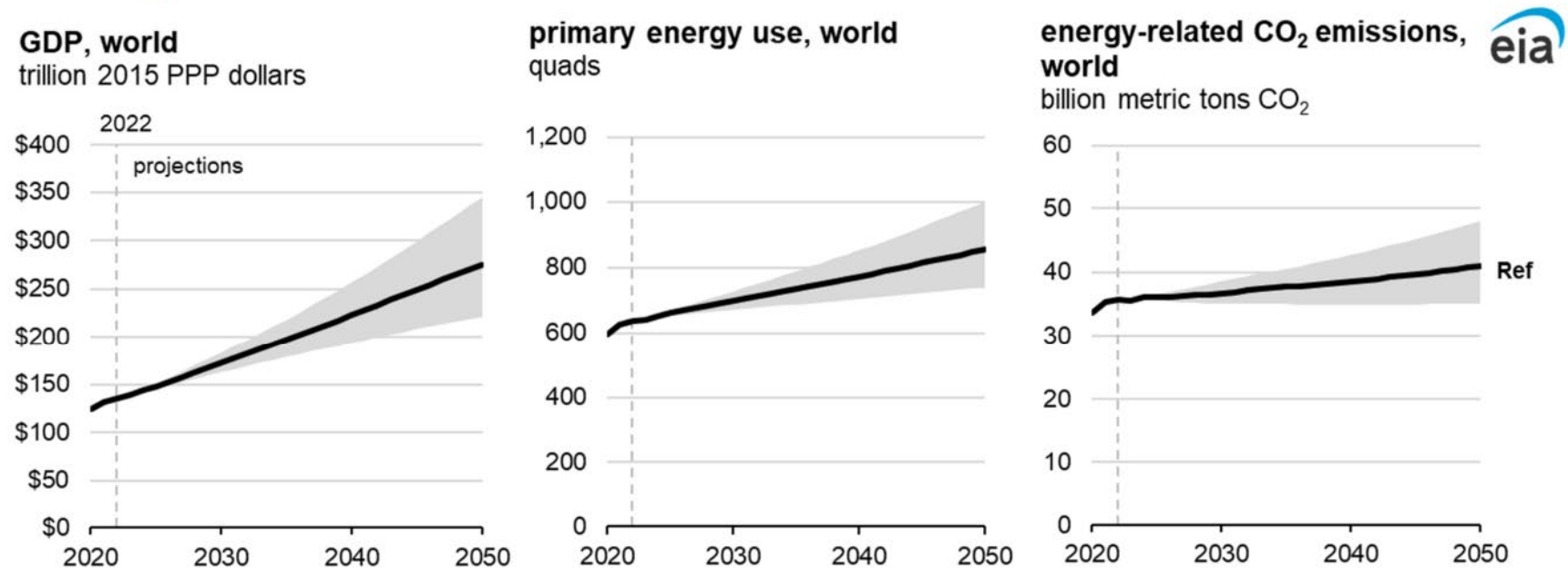
# Session outline

---

INTRODUCTION	AFFORDABLE, CLEAN ENERGY	CLIMATE ACTION	TAKEAWAYS
	World projections		
	Scale of supplies		
	Price		

# Demand side projections (World)

Across most cases, energy-related CO<sub>2</sub> emissions continue to rise through 2050 under current laws



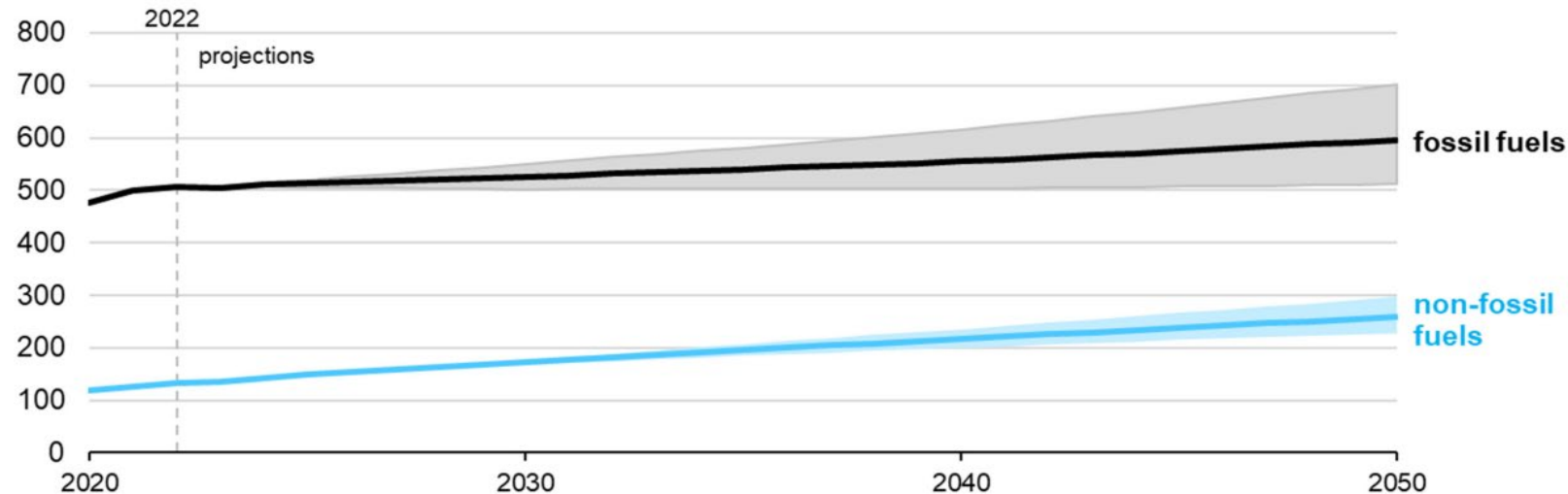
Data source: U.S. Energy Information Administration, *International Energy Outlook 2023* (IEO2023)

Note: Shaded regions represent maximum and minimum values for each projection year across the IEO2023 Reference case and side cases. Ref=Reference case; GDP=gross domestic product; quads=quadrillion British thermal units; PPP=purchasing power parity.

# Scale of supplies- an honest look? (World)

Increasing demand and current policies drive steady growth in fossil fuel energy—and faster growth in non-fossil fuel sources

Primary energy use, world  
quads



Data source: U.S. Energy Information Administration, *International Energy Outlook 2023* (IEO2023)

Note: Each line represents IEO2023 Reference case projections. Shaded regions represent maximum and minimum values for each projection year across the IEO2023 Reference case and side cases. Quads=quadrillion British thermal units.

## Average Trend Line

Total Energy use 2022= ~625 quads

Total Energy use 2050= ~825 quads

## Average Fossil Fuels %

Energy use 2022= ~80%

Energy use 2050= ~70%

## High Fossil Fuels %

Energy use 2050=  $700/1000 = 70\%$

Energy use 2050=  $700/925 = 75\%$

## Low Fossil Fuels %

Energy use 2050=  $500/800 = 62.5\%$

Energy use 2050=  $500/725 = 68\%$

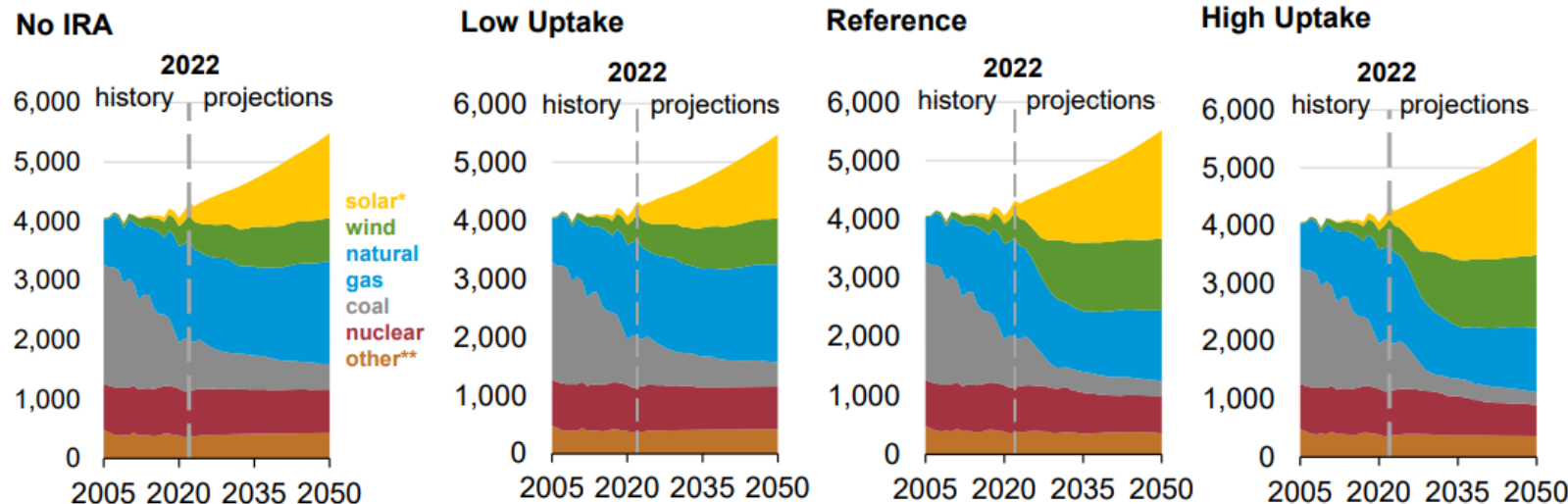
## Note:

Variability of fossil fuels is ~200 quads and average use of non fossil fuels is only at ~250 quads

# Scale of supplies- an honest look? (US)

## Solar and wind generate a majority of U.S. electricity by 2050 in the Reference and High Uptake cases

**U.S. net electricity generation by fuel**  
billion kilowatthours



Data source: U.S. Energy Information Administration, *Annual Energy Outlook 2023* (AEO2023)

Note: IRA=Inflation Reduction Act

\*Includes utility-scale and end-use photovoltaic generation and excludes off-grid photovoltaics.

\*\*Includes petroleum, conventional hydroelectric power, geothermal, wood and other biomass, pumped storage, non-biogenic municipal waste in the electric power sector, refinery gas, still gas, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

### Does it make sense?

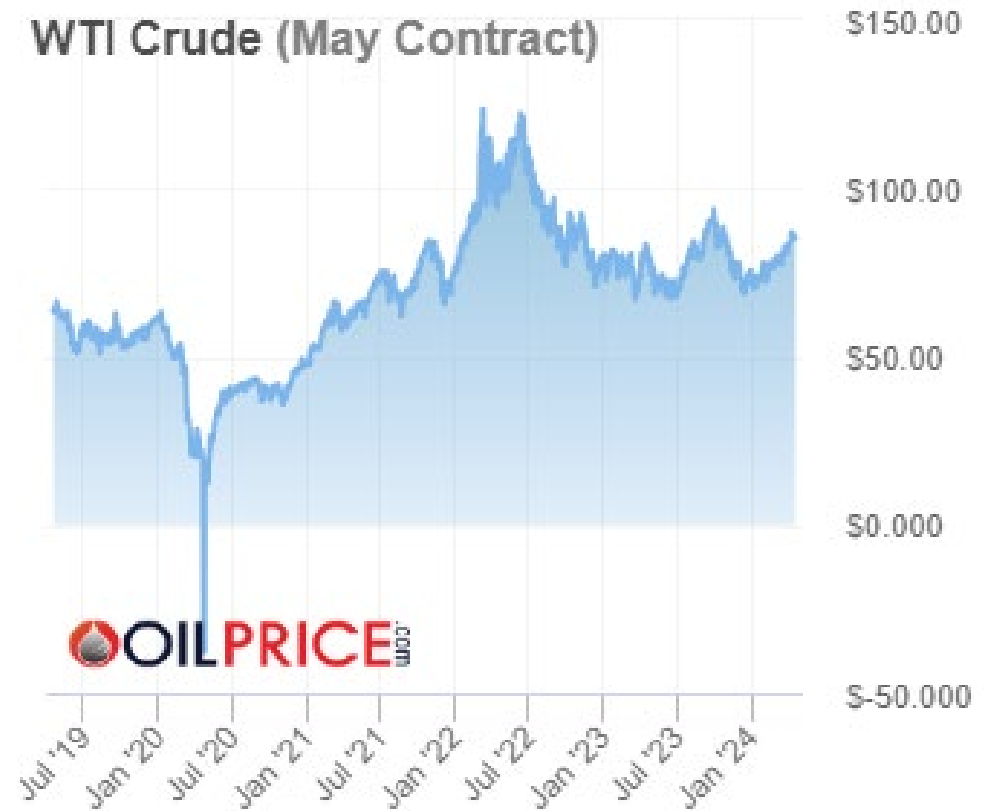
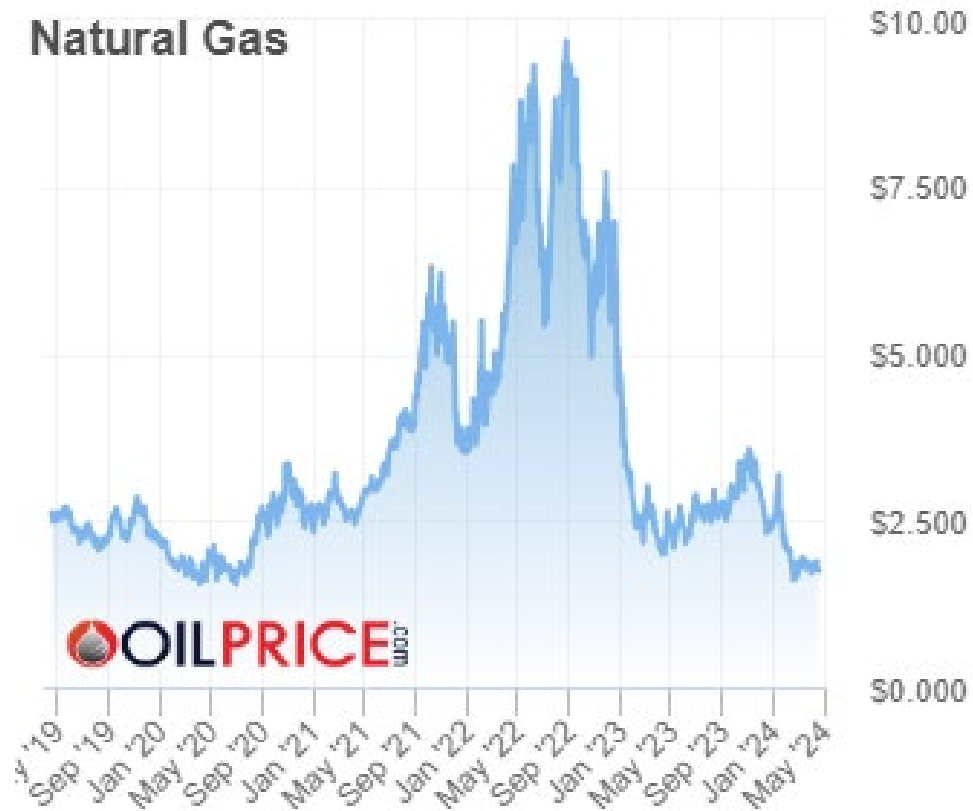
High uptake case is almost identical to reference case because we have made such ambitious targets with policy and goals

Massive growth in wind needed, is it reasonable?

Currently tracking to a low uptake scenario- note portion of energy supplied by natural gas

Do we think solar projections are reasonable?

# Price is important!





# Session outline

---

INTRODUCTION	AFFORDABLE, CLEAN ENERGY	CLIMATE ACTION	TAKEAWAYS
		What is climate?	
		EV uptake	
		Planet friendly investments	

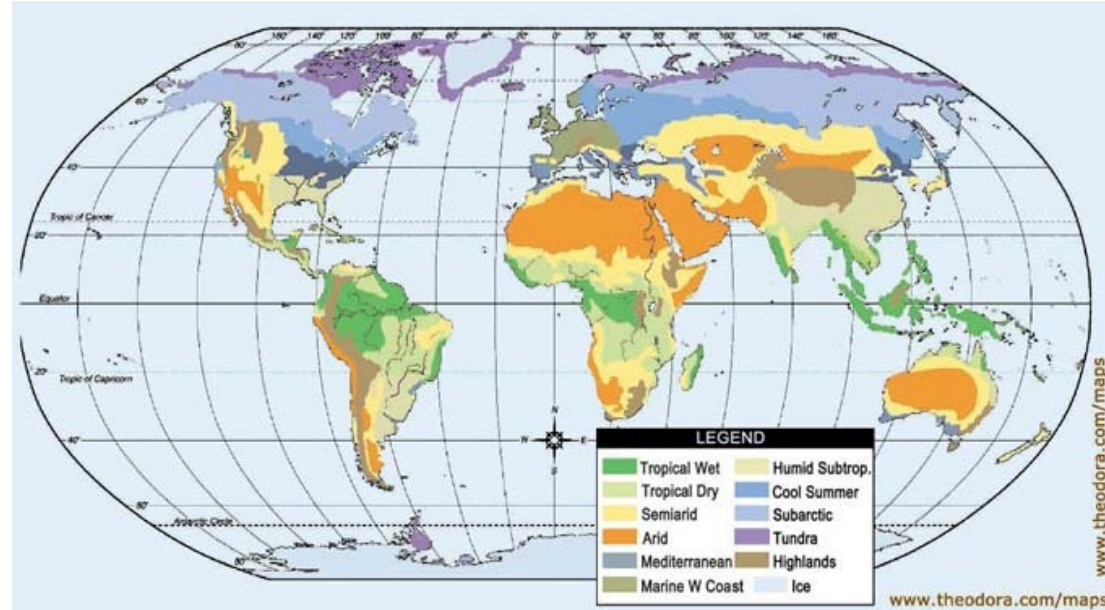
# What is climate?

The definition of climate says\* -

- 1) The weather conditions prevailing in an area in general or over a long period.
- 2) A region with a particular prevailing weather conditions.

**Note:** Diurnal temperature variations range from 10 or fewer degrees Fahrenheit (F) in humid tropical areas, to 40-50 degrees (F) in higher-elevation, arid to semi arid areas.

Could ocean temp be a better proxy?



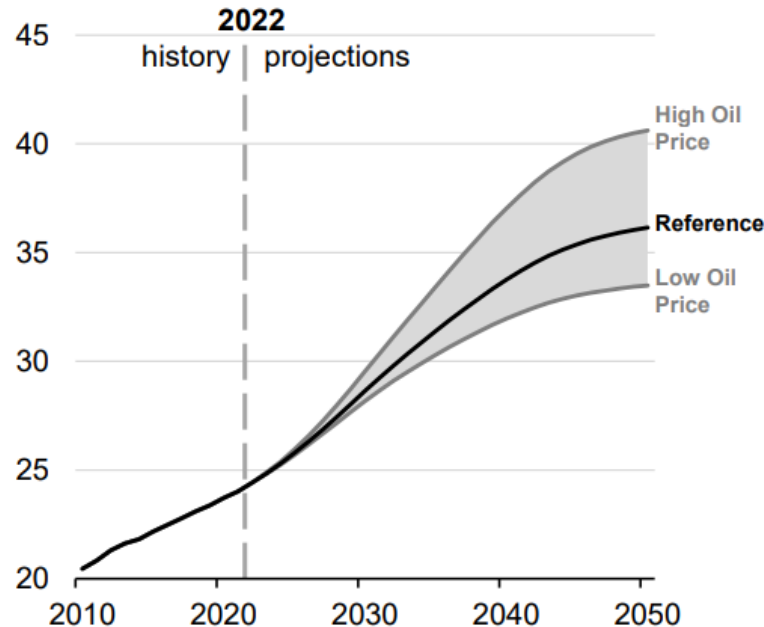
Climate forecasts are typically looking at scenarios for a 1.5, 2.0, 2.5 and 3.0 temperature variation in degrees Celsius.

This corresponds to 2.7, 3.6, 4.5 and 5.4 degrees (F).

# EV Uptake

Light-duty vehicle fuel economy and electric vehicle market share increase through 2050 due to rising CAFE Standards and other incentives

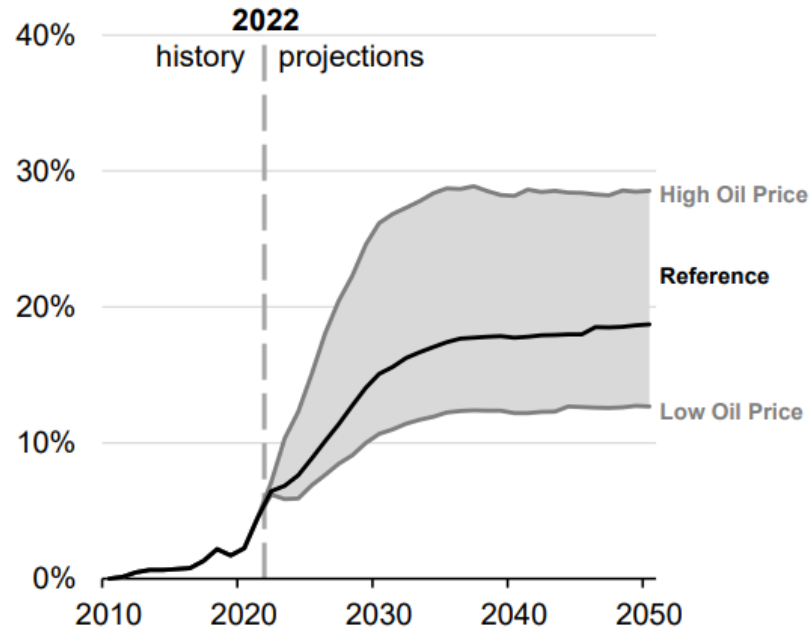
**Light-duty vehicle average fuel economy**  
miles per gallon



Data source: U.S. Energy Information Administration, *Annual Energy Outlook 2023* (AEO2023)

Note: \*Includes battery electric and plug-in hybrid electric vehicles. Shaded regions represent maximum and minimum values for each projection year across the AEO2023 Reference case and side cases.

**Market share of electric light-duty vehicles\***  
percentage of sales



Starting in 2026, 43% of all new passenger cars and light-duty trucks shipped to New Mexico auto dealerships by national auto manufacturers must be zero-emission vehicles.

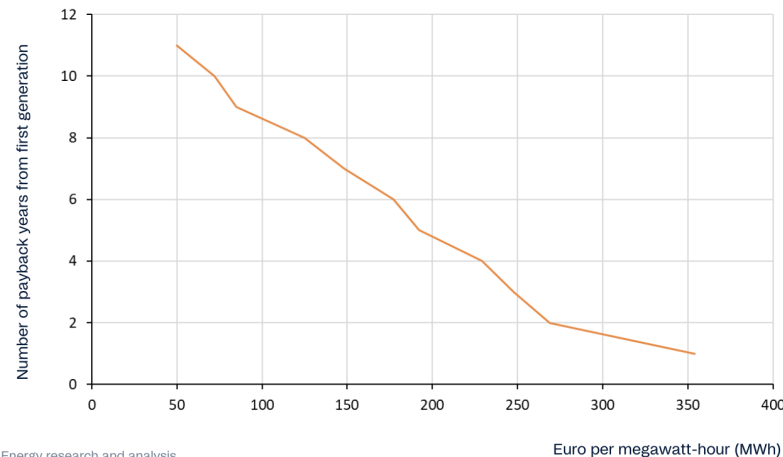
By 2032, four out of every five passenger cars shipped to the state by manufacturers must have zero emissions.

Does this make sense?

# Planet friendly investments?

Capital investments in renewables have also increased significantly and are set to reach \$494 billion in 2022, outstripping upstream oil and gas at \$446 billion for the year, according to Rystad Energy research. This is the first time that investment in renewables is set to be higher than for oil and gas.

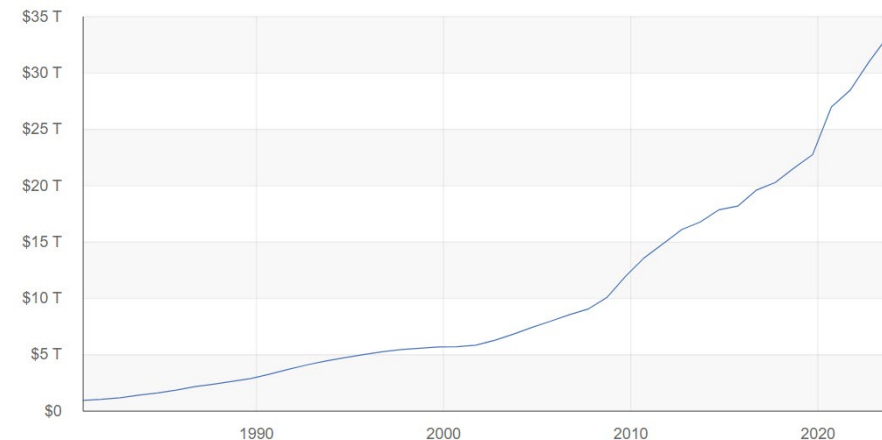
**Payback years for a 250 MW solar PV asset in Germany by power price**



Source: Rystad Energy research and analysis  
A Rystad Energy graphic

RystadEnergy

**1980 - 2023 | Complete Table US Historical National Debt**



# Session outline

---

INTRODUCTION	AFFORDABLE, CLEAN ENERGY	CLIMATE ACTION	TAKEAWAYS
			Environment
			Education
			Businesses

# Environment

---





# Education

---

Definition of existential crisis- an existential crisis is a recurring pattern of thoughts regarding your identity, purpose in life, and legacy among other things. Existential questions may appear at any point in your life and can affect your mood and overall quality of life.

## How to deal with an existential crisis from WebMD:

1. Talk to people
2. Change your perspective
3. Meditate
4. Keep a journal

- Perhaps sustainability educations could benefit from teaching critical thinking and data analytics?
- A focus on moving away from fossil fuels might be a toxic selling point to sustainable plans?
- Perhaps it is not the transition, but the pace at which it is done that is causing failures

# Business

---

One survey of over 300 businesses by Bain & Company found that 98% of sustainability initiatives fail to meet their objectives. Public spending is over \$20 trillion per year alone and we are not meeting objectives.

**Ways to sustain business growth by Forbes<sup>1</sup>:**

1. Hire Top talent
2. Look for operational efficiencies
3. Prospect the right clients
4. Use sound decision making
5. Have great leadership
6. Don't be afraid to grow

Perhaps we adopt these principals to help with environmental sustainability, realize we will make mistakes along the way and be ready to pivot when the data or the situation changes.

Psychiatrists say an actionable list should consist of a max of 9 items- 1 large to do, 3 medium to dos and 5 small to dos. Anything more makes everything else less likely to be accomplished.



## **Environmental Sustainability Definition**

Sustainability is the ability to continue a defined behavior indefinitely.<sup>1</sup> It is a broad concept that incorporates a variety of criteria including economics and the environment that will enable the community to thrive well into the future.

Environmental sustainability is a state that allows for indefinite support of our community, its built and natural environment, its quality of life, and future ecosystem health.

In order to achieve environmental sustainability, it requires a balance between the rates of resource depletion and generation, while minimizing the rate of pollution.

---

<sup>1</sup> Harich, J., Bangerter, P., (2014). *Finding and Resolving the Root Causes of the Sustainability Problem*. Retrieved from <http://www.thwink.org/sustain/glossary/EnvironmentalSustainability.htm>



# County of Los Alamos

## Staff Report

April 18, 2024

Los Alamos, NM 87544  
www.losalamosnm.us

---

**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Joseph Chandler

**Legislative File:** 18709-24

---

### **Title**

Debrief and Discuss Community Workshop for Climate Action Plan

### **Body**

A community workshop was held on April 2, 2024 to share proposed climate actions and strategies and gather community input and concerns. The ESB will discuss and debrief outcomes of this meeting.

### **Attachments**

Handouts may be provided at meeting.



# County of Los Alamos

## Staff Report

April 18, 2024

Los Alamos, NM 87544  
www.losalamosnm.us

---

**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Angelica Gurule

**Legislative File:** 18710-24

---

### Title

Sustainability Manager Updates

### Body

The ESB receives routine updates from the Sustainability Manager.

1. The Community Greenhouse Gas Emissions Study and Climate Action Plan
  - a. The agreement was approved by County Council on May 23, 2023 and Cascadia Consulting Group was awarded the contract.
  - b. The kickoff meeting was held on June 21, 2023
  - c. In August 2023, Los Alamos County employees were asked to share their 2022 commuting habits. Final response total is 315.
  - d. Community Survey was open from September 19 to October 18. In total 552 Los Alamos community members completed the survey.
  - e. The Greenhouse Gas Inventory Report was presented December 11 and the County Senior Management team also received an update on December 13th.
  - f. Cascadia presented update and budget options to County Council on March 5, 2024.
  - g. CAP Polling Survey Working Group (Joseph Chandler and Erik Loechell, and I) met twice to discuss path forward. The group concluded that the Community Survey did capture community demographics, was statistically significant and no additional community survey is needed at this time. The Group will provide feedback on the poll questions that will be presented at the Community Workshop.
  - h. Hosted Community Workshop April 2, 2024
  - i. Next steps are interviews with focus groups and draft climate action plan to be presented to Council in July 2024.
2. 4 Climate Actions Video - with PAC-8, Los Alamos County produced a short video highlighting the climate action of four local residents who have taken climate action in their own personal lives. This video will be shared across the community and it's purpose is to inspire other community members to take climate action.
3. Food Waste Composting Presentation was provided to Council on September 6, 2022. County Council voted unanimously to acknowledge and accept the ESB's recommendation and direct the County Manager to implement a food composting system

---

at Bayo Canyon using a windrow system; provide drop-off sites for residents and curbside collection for business; and incorporate this program into the revised Environmental Services associated fees and FY2024 budget development. Phase II - Design Services began December 2022. Due to unforeseen site constraints, alternative sites are being considered and will be presented to Council on February 6, 2024. Council approved recommendation to seek DOE approval to amend the lease to allow aerated static pile (ASP) composting at the Eco Station.

4. Information sharing and recruiting efforts will be key in upcoming months. Seeking Volunteers for the following events:
  1. Leadership Los Alamos Informational Booth on April 19th at PCS Building 1
  2. Earth Day on April 20th at PEEC Nature Center
  3. Water Festival in May 20 and 21st at Fuller Lodge
  4. Clean Up LA Day on September 21, 2024

**Background:**

The final report of the Los Alamos Resiliency Energy and Sustainability (LARES) Task Force contained many recommendations. Three recommendations were implemented: 1) Sustainability Manager position created and filled; and 2) Conduct Greenhouse Gas Study and Climate Action Plan; and 3) Provide ongoing outreach and education. The LARES recommendation GR-6 to “Create an on-going body of (largely citizen) collaborative stakeholders to advise Council, Department and Board of Public Utilities, and other relevant County bodies on implementing the goals and strategies recommended in the climate action plan and monitor progress.” From its inception ESB focused on solid waste topics; however, the code specified the scope as “environmental sustainability policies, programs, and services.” On March 14, 2023, County Council voted that the ESB work with the new Sustainability Manager in support of implementing the recommendations of LARES. The charter language remained unchanged; however, the Sustainability Manager and ESB will reside under the County Manager’s Office for support.

**Attachments**

**E - Residential Sustainability Report - March 2024**



# Residential Sustainability Report

Service Period: March 2024

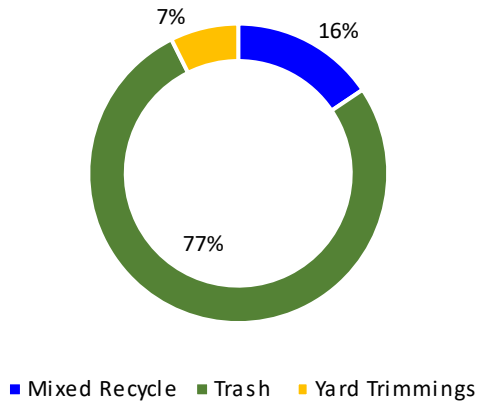


LOS ALAMOS

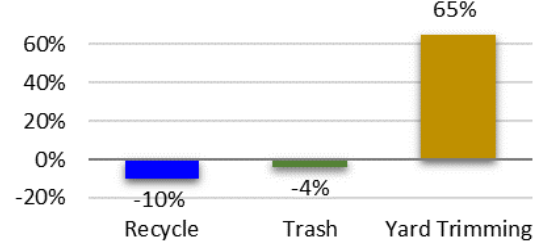
March Diversion Rate: **23%**

The *diversion rate* is the percent of recyclable and compostable material diverted from the landfill.

## Monthly Collection Report

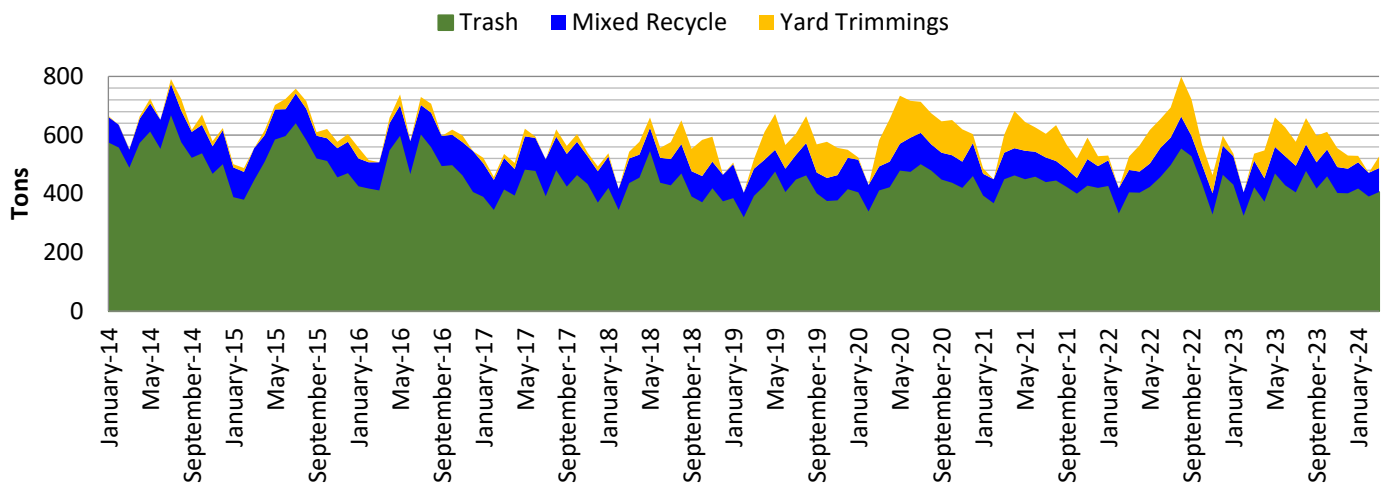


## % Change Previous Year

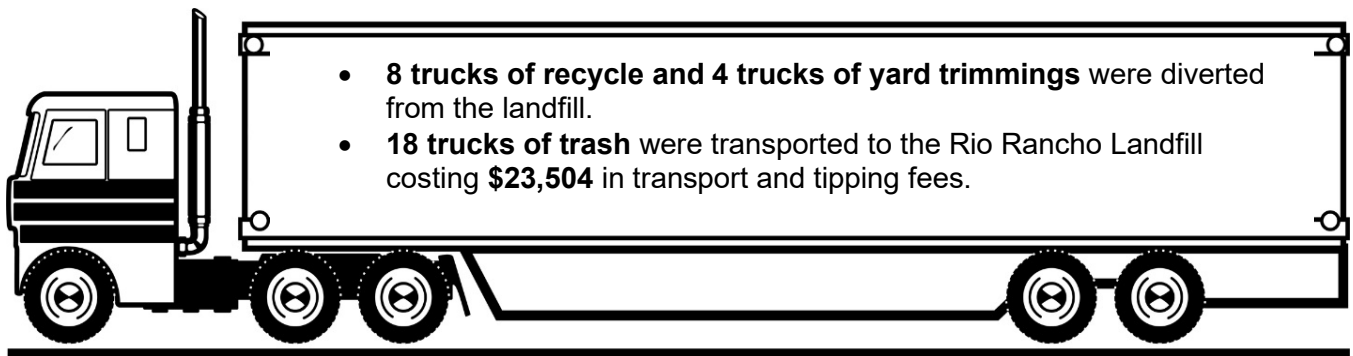


	Mar-23	Mar-24
Yard Trimming	23.52	38.77
Recycle	91.33	82.08
Trash	421.85	406.19

In March by recycling and composting Los Alamos County reduced GHG emissions by ~358 tons\*



In 2024 by recycling and composting Los Alamos County reduced GHG emissions by ~988 tons\*



For more information contact Environmental Services Division at 505.662.8163 or email [solidwaste@lacnm.us](mailto:solidwaste@lacnm.us)

\*GHG emissions calculated using <https://www.stopwaste.co/calculator>