

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
PUBLIC HEARING
DAY III
Commencing at 10:00 a.m. (EST)
May 11, 2023

Proposed Rulemaking Multi-Pollutant
Emissions Standards for Model Years 2027
and Later Light-Duty and Medium Duty Vehicles

Transcribed By:
Stephanie Lyn Hagen, RPR

JerseyShore Reporting, LLC
Colfax Plaza
Building I - Unit 12
2510 Belmar Boulevard
Wall, New Jersey 07719
732-282-0704 Fax 732-282-0714

(1) MS. PIGGOTT: Good morning, and
(2) welcome to the United States Environmental
(3) Protection Agency's or EPA virtual public hearing
(4) for the proposed rule titled Multi-Pollutant
(5) Emissions Standards for Model Years 2027 and
(6) Later Light-Duty and Medium-Duty Vehicles.

(7) My name is Jennifer Piggott from
(8) ICF, a third-party contractor supporting the EPA.
(9) I will serve as your meeting facilitator for
(10) today's hearing. We are transcribing today's
(11) hearing and you can turn on live captions if you
(12) would like to read the verbal dialogue. To turn
(13) on closed caption, turn on the CC icon that says
(14) live transcript at the bottom of your Zoom
(15) screen. Then click show subtitles to view closed
(16) captioning and close subtitles to turn them off.

(17) I'll now turn the meeting over
(18) to Mike Olechiw, the Director of the Light-Duty
(19) Vehicle and Small Engine Center with EPA's Office
(20) of Air and Radiation. Mike?

(21) MR. OLECHIW: Thank you,
(22) Jennifer. Good morning everyone. On behalf of
(23) the U.S. Environmental Protection Agency and the
(24) Office of Air and Radiation, I'd like to welcome
(25) you to today's virtual public hearing. I am

(1) grateful for everyone who is taking the time out
(2) of their day to testify and participate here
(3) today.

(4) I am Mike Olechiw with EPA's
(5) Office of Air and Radiation. I will be the
(6) presiding officer for today's meeting, hearing,
(7) and when I am not available, my colleague Robin
(8) Moran will serve as presiding officer for this
(9) hearing.

(10) In addition, with me today and
(11) listening to the testimony on this proposed rule
(12) are several of my EPA colleagues who work on our
(13) light and medium-duty vehicles program. EPA is
(14) also being assisted by our contractor, ICF, in
(15) the running of today's virtual public hearing.

(16) On April 12, EPA announced an
(17) important proposal to set new emissions standards
(18) for light and medium-duty vehicles for model year
(19) 2027 and later. This proposed rule titled
(20) Multi-Pollutant Emissions Standards for Model
(21) Years 2027 and Later Light-Duty and Medium-Duty
(22) Vehicles, is the subject of today's hearing.
(23) This proposal would set the most ambitious
(24) federal light and medium-duty vehicle emissions
(25) standards ever established for greenhouse gases

(1) and other harmful air pollutant emissions. This
(2) rule, together with the recently finalized
(3) heavy-duty NOx rule, and the recently proposed
(4) heavy-duty greenhouse gas rule, is a major step
(5) forward in EPA's "Clean Trucks Plan," which will
(6) reduce greenhouse gases and harmful air pollution
(7) from across the on road sector.

(8) This proposal builds upon EPA's
(9) most recent standards established in 2021, for
(10) federal greenhouse gas emissions standards for
(11) passenger cars and light trucks for model years
(12) 2023 through 2026. These proposed standards are
(13) expected to provide significant benefits for the
(14) climate, public health and consumers. The
(15) proposal reflects advances in clean vehicle
(16) technologies and increasing growth in the market
(17) for zero-emissions vehicles, as well as
(18) investments made by Congress in the Bipartisan
(19) Infrastructure Law and the Inflation Reduction
(20) Act, to unlock meaningful benefits for public
(21) health from cleaner air.

(22) At the same time, the proposal
(23) provides consumers with lower operating costs
(24) resulting from significant fuel savings and
(25) achieves significant emissions reductions in

(1) criteria pollutants and greenhouse gases over the
(2) short and long terms. The proposal's net
(3) benefits range from \$850 billion to \$1.6
(4) trillion.

(5) EPA is seeking public comment on
(6) a range of alternatives both more and less
(7) stringent than the proposal. Across the range of
(8) the proposal and alternatives, the projected CO2
(9) emission targets to be reduced by 50 percent to
(10) 61 percent compared to the current standards in
(11) 2026.

(12) EPA's proposed standards allow
(13) each automaker to choose what set of emission
(14) control technologies is best suited for their
(15) vehicle fleet to meet the standards. Across the
(16) range of alternatives, EPA projects that one
(17) potential pathway for the industry meet the
(18) standards would be through approximately 64
(19) percent to 69 percent of new passenger cars and
(20) light trucks sold to be electric by 2032.

(21) EPA also projects that auto
(22) manufacturers could meet the proposed standards
(23) through about 40 percent of their new medium-duty
(24) vans and trucks sold to be electric, widespread
(25) use of filters to reduce gasoline particulate

(1) matter emissions and improvements in gasoline
(2) vehicle CO2 reducing technologies.

(3) The proposed standards would
(4) significantly reduce passenger car, light truck
(5) and medium-duty vehicle emissions of CO2,
(6) hydrocarbons, nitrogen oxides and particulate
(7) matter which would result in widespread
(8) reductions in the air pollution that contributes
(9) to climate change and unhealthy air.

(10) Reductions in these harmful
(11) pollutants would lead to lower hospital
(12) admissions and emergency department visits along
(13) with fewer cases of asthma symptoms, lost work
(14) days and school absences for children. EPA
(15) analyzes -- EPA analysis show that more severe
(16) health impacts related to particulate exposure
(17) would also be reduced such as lung disorders
(18) including cancer, heart disease and premature
(19) mortality.

(20) For consumers, EPA estimates
(21) significant savings from lower operating costs
(22) through fuel savings and the lower maintenance
(23) and repair costs of electric vehicles.

(24) The proposed standards align
(25) with and support the commitments and billions of

(1) dollars worth of investments from automakers as
(2) they plan to increase the use of zero-emissions
(3) technologies in the light and medium-duty fleets
(4) in the next five to ten years.

(5) Our proposal reflects input from
(6) stakeholders including community groups,
(7) manufacturers, and the state, local and tribal
(8) governments. Today we look forward to hearing
(9) additional input through your comments on our
(10) proposed rule making entitled Multi-pollutant
(11) Emissions Standards for Model Years 2027 and
(12) Later Light-Duty and Medium-Duty Vehicles which
(13) was published in the Federal Register on May 5,
(14) 2023. We intend to finalize this proposal by the
(15) spring of 2024.

(16) This hearing provides interested
(17) parties the opportunity for oral presentation of
(18) views and arguments, witnesses will be allowed to
(19) make oral statements which they may later expand
(20) in writing for the official record of the
(21) hearing.

(22) When you are finished with your
(23) comments, members of the panel may ask clarifying
(24) questions. This hearing is not intended to be a
(25) discussion of the proposed rule making. While we

(1) might ask questions or request additional data or
(2) supporting materials, we will not respond to
(3) comments in this forum, instead we will provide a
(4) written response to the comments as part of the
(5) process of finalizing this proposed rule making.

(6) Finally, I would like to remind
(7) everyone that in addition to today's hearing,
(8) there is also an opportunity to send EPA written
(9) comments. The written comment period closes on
(10) July 5 at 11:59 eastern time. The details on
(11) where to submit written comments can be found in
(12) the Federal Register notice announcing the
(13) proposal as well as on our website.

(14) Now I'd like to go over how we
(15) are conducting today's hearing. Today's hearing
(16) will be conducted informally and formal rules of
(17) evidence will not apply. I will be serving as
(18) the presiding officer for today's hearing, as
(19) such I am authorized to apply reasonable limits
(20) on the duration of the statement of any witness.
(21) We ask that each person limit their verbal
(22) testimony to three minutes. Given the number of
(23) testifiers for this hearing, we will need to hold
(24) speakers to that time limit.

(25) Our contractor ICF will be

(1) facilitating the line up of the speakers and
(2) helping to keep testimony to three minutes. We
(3) appreciate all your cooperation in allowing us to
(4) give everyone an opportunity to speak today.

(5) A written transcript of this
(6) hearing will be available electronically on EPA's
(7) website and at the regulations.gov website under
(8) the docket for this rule making which is Docket
(9) Number EPA-HQ-OAR-2022-0829. The official record
(10) of this hearing will be kept open for 30 days
(11) after the date of the hearing to provide
(12) opportunity to submit a rebuttal and supplement
(13) testimony. You may submit this additional
(14) testimony to the same docket for this action
(15) using one of the methods described in the Federal
(16) Register notice announcing the proposal.

(17) Please note that EPA has
(18) distributed a list in a tentative order of those
(19) listed to speak today and will make slight
(20) adjustments through the hearings for
(21) accommodations. We plan to take a one hour lunch
(22) break around twelve noon today and resume until
(23) one p.m. continuing until three p.m. today or
(24) until all testifiers have had a chance to speak.
(25) All times are in eastern time. Once all speakers

(1) have completed their testimony, we will adjourn
(2) this hearing.

(3) Finally while the EPA
(4) representative speaking today will attempt to
(5) ensure the accuracy of any descriptions that we
(6) provide to the proposed rule making, the official
(7) version of the proposal is that which is
(8) published in the Federal Register on May 5, 2023
(9) and it controls in any case of conflict between
(10) it and what you may hear today. Please refer to
(11) the official version in developing your written
(12) comments on this proposal.

(13) Should there be any members of
(14) the press that have further questions about
(15) today's hearing, we ask that you please contact
(16) the EPA press office at press@epa.gov.

(17) Thank you very much and with
(18) that I am going to turn it back over to Jennifer
(19) and Jennifer is going to go over some logistics
(20) for today's public hearing. Thank you.

(21) MS. PIGGOTT: Thank you, Mike.

(22) I'd now like to go over today's
(23) agenda. Again this is the third of three days of
(24) hearing. The first day was held on Tuesday, May
(25) 8 from ten a.m. to seven p.m.; second day of the

(1) hearing was held on May 9 from one p.m. to ten
(2) p.m. eastern. As Mike noted today's hearing is
(3) scheduled to last until all speakers have had a
(4) chance to testify. We do plan to take a lunch
(5) break from twelve p.m. to one p.m. eastern.
(6) Additional short breaks may be taken as-needed by
(7) the hearing officer or the court reporter.

(8) Because we are meeting in the
(9) virtual space instead of in person, we'd like to
(10) go over some logistics for today's hearing.
(11) Today's hearing is being recorded for the court
(12) reporter and the recording will not be posted
(13) publicly however a written transcript will be
(14) available. Therefore please do not include any
(15) information you consider to be confidential
(16) business information or proprietary business
(17) information or medical information about someone
(18) other than yourself or other information whose
(19) disclosure is restricted by an applicable
(20) authority in your testimony.

(21) Please note that all attendees'
(22) microphones are muted and cameras are turned off
(23) automatically. Each speaker will have three
(24) minutes to speak. Please speak slowly and
(25) clearly for the benefit of the court reporter.

(1) There will be an on screen timer for those
(2) on-line, and if we have anyone on the phone, I'll
(3) give phone participants a 30 second warning when
(4) you need to wrap up.

(5) Because of the large number of
(6) registered speakers we will be strictly enforcing
(7) the three minute time limit. If you exceed your
(8) time, we will need to turn off your microphone.
(9) If you have additional comments you would like to
(10) provide, you can also submit them through the
(11) docket at www.regulations.gov using Docket ID
(12) EPA-HQ-OAR-2022-0829 and we will post this
(13) information into the Zoom chat.

(14) We will display the list of
(15) registered speakers displayed by panels so you
(16) know approximately when your turn to speak is
(17) coming up. If you are speaking today, you will
(18) receive a notification on your screen that you
(19) are being promoted to panelist shortly prior to
(20) your speaking time. You must click to accept
(21) that invitation to be able to unmute when you are
(22) called onto testify. This will also allow you to
(23) turn on your camera which we encourage you to do
(24) so.

(25) Speakers connected by phone

(1) should unmute their phones by pressing star six
(2) when called to testify. When called upon, please
(3) state your name and any affiliation and then
(4) begin your testimony. If you need to change your
(5) name that appears on Zoom so it's easier for us
(6) to find you, you can do that by clicking the
(7) participant button on the tool bar at the bottom
(8) of your screen. Hover the mouse over your name
(9) and click on more. A window will open allowing
(10) to you to edit or correct your name that's being
(11) displayed. When done click okay.

(12) If at any time during the
(13) hearing you are having technical difficulties,
(14) use the chat feature at the bottom of your screen
(15) to message the meeting host or contact
(16) epublichearing@icf.com or call 916-955-7967 and
(17) we posted this information into the chat as well.
(18) Please make note of the phone number for this
(19) hearing. The phone number is 669-254-5252
(20) webinar ID 160 969 9312. And we posted this
(21) information into the Zoom chat.

(22) If you experience difficulty
(23) with your internet connection at any point during
(24) this hearing you can call this number to listen
(25) to the hearing. Individual connections and

(1) bandwidths vary and may impact your viewing
(2) experience. We recommend closing all apps and
(3) programs and limiting other streaming or
(4) downloads while you are participating in this
(5) hearing.

(6) We will now begin accepting
(7) public testimony. Please note that an EPA
(8) representative may ask clarifying questions at
(9) the end of your testimony otherwise we will
(10) immediately move onto the next speaker.

(11) The expected speaker order list
(12) is currently displayed on the screen. Again we
(13) ask each person limit their verbal testimony to
(14) three minutes. If you have additional comments
(15) you were not able to provide orally today, you
(16) can submit them through regulations.gov using the
(17) web ID that we posted into the chat.

(18) I will be calling on each
(19) speaker one at a time in the order displayed on
(20) the screen. Please speak clearly so the court
(21) reporter can record the proceedings accurately.
(22) Finally I apologize in advance for mispronouncing
(23) anyone's name.

(24) Our first speaker this morning
(25) in panel 29 is Lindsey Mendelson. You are going

(1) to receive a prompt from me to promote to
(2) panelist.

(3) LINDSEY MENDELSON: Thank you
(4) for the opportunity to testify. My name is
(5) Lindsey Mendelson, I am the transportation
(6) representative with the Maryland chapter of the
(7) Sierra Club and I urge the EPA to finalize a
(8) strong light and medium-duty vehicle rule that
(9) will put us on a pathway for 100 percent of
(10) vehicles sold to be zero-emission by 2035 and
(11) that will result in a 75 percent reduction in
(12) greenhouse gas emissions from light and
(13) medium-duty vehicles by 2030. The current
(14) proposed standards fall short of meeting this
(15) target and fulfilling our commitment under the
(16) Paris Agreement.

(17) The on road transportation
(18) sector contributes to 29 percent of greenhouse
(19) gas emissions in Maryland and is a major source
(20) of NOx pollution. NOx pollution contributes
(21) significantly to ozone in Maryland and also to
(22) nitrogen pollution in the Chesapeake Bay.

(23) Right now the Baltimore region
(24) and Cecil County are in non attainment for the
(25) 2015 ozone standards, and as many as one in four

(1) new childhood asthma cases are attributable to
(2) this pollution.

(3) EPA should adopt more stringent
(4) NOx pollution measures so that Marylanders can
(5) breathe healthy air. I live a few blocks from
(6) route one highway in Maryland, and I often smell
(7) and hear noisy trucks and cars and buses when I
(8) go outside. I am worried that breathing in this
(9) pollution from heavy traffic will damage my lungs
(10) and cause health problems for me and my family.
(11) I know that people in Maryland are at very high
(12) risk for complications from breathing in the
(13) unhealthy pollution especially communities
(14) located by highways that experienced decades of
(15) residential segregation.

(16) If we don't take bold climate
(17) action now, we are going to see more impacts like
(18) deadly heat waves, bad air days, floods, and the
(19) region I live tic born illness like Lyme on the
(20) rise and the risk of these infectious diseases
(21) are only going to get worse with climate change.

(22) Maryland is currently in the
(23) process of adopting a zero-emission mandate for
(24) light-duty vehicles and it results in a higher
(25) percentage of light-duty vehicle sales with the

(1) EPA rule. Maryland regulation results in 82
(2) percent of light-duty vehicles sold being
(3) zero-emission in model year 2032 but the federal
(4) rule is only projected to result in approximately
(5) 67 percent of light-duty vehicles sold being
(6) zero-emission in that year.

(7) I urge the EPA to revisit the
(8) rule to make the standards more aggressive and
(9) similar to the feasible standards that Maryland
(10) and several other states have adopted through
(11) clean car two standard and the medium-duty
(12) requirements of the advanced clean trucks rule.

(13) As EPA implements the standards,
(14) I also encourage it to work with federal agencies
(15) on complimentary policies to ensure the equitable
(16) transition to EVs. Thank you.

(17) MS. PIGGOTT: Thank you for your
(18) comments. Next speaker in panel 29 is Alex
(19) Boesenberg.

(20) ALEX BOESENBERG: Good morning.
(21) Thank you. I am Alex Boesenberg, I am the Vice
(22) President of Regulatory Affairs for MEMA, the
(23) vehicle suppliers association. MEMA and its
(24) members support and enable the support and enable
(25) the challenging goal of transforming the

(1) transportation sector for light and medium-duty
(2) vehicles in a very short timeframe.

(3) We do have some concerns with
(4) the EPA proposal. First it appears the EPA
(5) analysis of availability of raw materials,
(6) components and finished vehicles could be
(7) overestimated. It appears the agency is taking
(8) global production estimates and promises at face
(9) value and extrapolated from there, perhaps
(10) assuming 100 percent achievement which
(11) historically is very unlikely.

(12) Similarly existing and projected
(13) investments in EV charging infrastructure and
(14) electricity generation while significant seem to
(15) still not be enough to meet the needs of an
(16) electrified transportation sector. Consumer
(17) concerns for charging and range can seriously
(18) undermine purchasing decisions and thereby
(19) undercut sales.

(20) However, under the program,
(21) manufacturers must still produce vehicles as part
(22) of a fleet manufacturing plant even if they are
(23) not sold at the time or the price expected. In
(24) addition once an individual supplier has decided
(25) to serve the battery electric or fueled cell

(1) electrical vehicle market, they cannot change
(2) back later but if those vehicle don't sell or
(3) consumers demand or consumers demand different
(4) technology than assumed, suppliers can be
(5) penalized.

(6) While we appreciate the
(7) significant federal, state and private
(8) investments being made to support vehicle
(9) production, complimentary levels of production in
(10) workforce enhancement are also needed to support
(11) millions of zero and partial zero-emissions
(12) vehicles soon to be on the road. Without the
(13) upgraded and expanded workforce needed to
(14) maintain new electrified vehicles, consumers may
(15) be stranded without repair services.

(16) Programs for workforce and
(17) aftermarket enhancement do not yet exist. To
(18) rely so heavily on battery electric vehicles runs
(19) the risk of putting all your eggs in one basket
(20) as the saying about risk avoidance goes. We urge
(21) EPA to set standards that allow the widest range
(22) of low to no emissions technology solution to
(23) include practical consideration for engines using
(24) hydrogen or other renewable fuel solutions that
(25) can provide a broad and timely solution to impact

(1) climate change from both new and used vehicles
(2) while insuring the workforce and the economy
(3) transforms sustainably in the new era of clean
(4) transportation.

(5) Again MEMA and its members
(6) support the EPA's goals of emissions reduction, a
(7) well-crafted final rule will not only provide
(8) regulatory -- not only provide emissions
(9) reduction but provide regulatory certainty that
(10) businesses and national economy needs. This
(11) provides the support we need to enable, sound
(12) significant investments, conversions and
(13) expansions that will drive U.S. job enhancement,
(14) creation and combine national success.

(15) MS. PIGGOTT: That's time, thank
(16) you for your comments.

(17) Alright, our next speaker is
(18) Andrea Strzelec.

(19) ANDREA STRZELEC: Hello, thank
(20) you for the opportunity to speak today. My name
(21) is Andrea Strzelec. I have been working in the
(22) field of exhaust emissions control continuously
(23) since 2003. My Ph.D. work was focused on fuel
(24) effects and emissions after treatment and the
(25) opinions that I am sharing today are my personal

(1) views defined by my concern for the environment
(2) and future generations as well as twenty years of
(3) experience working on mobile source emissions
(4) control for pollution reduction.

(5) Let me start by acknowledging
(6) that I absolutely support the goal of this
(7) proposal and believe that we need to work to
(8) further reduce pollutant and GHG emissions
(9) however I emphatically do not support the
(10) specifics of this proposed rule.

(11) I believe that both the EPA and
(12) the passionate speakers from the past couple of
(13) days are very well intentioned but you are also
(14) likely familiar with the quote that the road to
(15) Hell is paved with them, because intentions can
(16) have unintended consequences. We cannot make
(17) such gravely important decisions based on
(18) intentioned or impassioned pleas. The stakes are
(19) much too high.

(20) It is imperative that we make
(21) decisions based on science, in this case, it
(22) means including lifecycle analysis in policy
(23) development because dirty is in the details.

(24) My strong concern with the
(25) proposed rule is the unintended consequences that

(1) we risk because of the outdated methodology that
(2) has been used to develop it. The EPA claims that
(3) the proposed rule is technology neutral but
(4) functionally it is not as it only considers
(5) tailpipe emissions.

(6) Because mobile and stationary
(7) source emissions are not coupled in the
(8) regulatory sense though of course they are in
(9) reality, it means if we only consider tailpipe
(10) emissions for this rule, electric vehicles are
(11) then considered to be zero-emissions. Let me be
(12) clear this is a policy based definition and is
(13) not factually true. Zero emissions is a physical
(14) impossibility, you can blame thermodynamics.

(15) EVs simply move the mobile
(16) source emissions that would have come out of the
(17) tailpipe to the stationary power generating
(18) source. In the United States that means a vast
(19) majority of EVs are actually being powered by
(20) coal or fossil fuels.

(21) The hardware is not the problem.
(22) Neither the engine nor the electric drive motor
(23) are bad. In fact they both suffer from the same
(24) fundamental problem in terms of emissions, the
(25) energy source that allows them to deliver power.

(1) In addition only considering the tailpipe
(2) emissions does not consider the emissions from
(3) manufacturing and I'll note that battery
(4) materials and manufacturing issues have been
(5) described by previous speakers.

(6) The only way to truly understand
(7) the impact of any standard technology or rule is
(8) by looking at the entire picture by doing
(9) accurate lifecycle analysis that considers all
(10) the inputs and outputs, not just the convenient
(11) ones.

(12) Therefore I urge the EPA to
(13) reconsider the rule using lifecycle analysis.
(14) Thank you very much.

(15) MS. PIGGOTT: Thank you for your
(16) comments.

(17) Next speaker, I am not seeing on
(18) the Zoom, Linda Ellsworth. If you are a call in
(19) only user, you can hit star nine to raise your
(20) hand.

(21) I am going to send you a prompt.
(22) Linda Ellsworth, you should be a panelist, should
(23) be able to unmute.

(24) LINDA ELLSWORTH: Thank you for
(25) taking my testimony. I am Linda Ellsworth from

(1) Orcas Island, Washington. I have been driving an
(2) electric vehicle since 2015, and I'll never go
(3) back. But the problem is that I have been, every
(4) time in the wintertime when I need to turn on the
(5) defrost, it pulls in the air from all of the
(6) other cars around me. If all of those other cars
(7) were electric, it would be no problem but as it
(8) is, I am pulling in the toxic fumes of every
(9) other vehicle around me.

(10) So I am wanting this to happen
(11) as soon as possible so that I can breathe clean
(12) air and our environment can be better and also to
(13) address what was just said that we need to put
(14) this same effort into greening up our electric
(15) grid and at a lot of that problem will be solved
(16) by going solar. Thank you.

(17) MS. PIGGOTT: Thank you for your
(18) comments.

(19) Alright, our next speaker is Kim
(20) Pendergast.

(21) KIM PENDERGAST: Good morning.
(22) My name is Kim Pendergast, and I am the CEO of
(23) Magnuson Superchargers located in Ventura,
(24) California. Our products developed and
(25) manufactured in the United States support 60

(1) employees and a nationwide network of over 300
(2) dealers.

(3) Magnuson Superchargers reliably
(4) increase horsepower in all types of vehicle,
(5) everyday trucks and cars, off roads and racers
(6) all while complying with California's strict
(7) emissions standards.

(8) Superchargers permit OEMs and
(9) others to downsize vehicle engines and
(10) correspondingly their carbon footprint.
(11) Superchargers only provide power on demand
(12) enabling a smaller fuel efficient engine to
(13) deliver everyday needs but when you tow a boat or
(14) drive up a steep hill, the supercharger provides
(15) the additional power.

(16) American auto makers lose
(17) billions a year in their electric vehicle
(18) programs despite the enormous amounts of tax
(19) payer money being syphoned directly to them and
(20) indirectly to them through consumer subsidies.
(21) Overlooked in this discussion is the impact on
(22) small business and its people, and a particular
(23) small business like mine that are built entirely
(24) around improving the internal combustion engine.

(25) To remain viable while providing

(1) a livelihood to our highly skilled employees and
(2) their families means just giving us a chance, a
(3) chance to let the market decide and drive fuel
(4) innovation to focus our efforts on all zero and
(5) low emission fuel alternatives instead of
(6) destroying one engine technology that has proven
(7) over and over it can run cleaner and more
(8) efficiently with a little elbow grease.

(9) The policy under consideration
(10) is not technology neutral. This administration
(11) and its allies in the environmental community are
(12) on a path to eliminate the internal combustion
(13) engine. California where we live and work has
(14) made that goal abundantly clear. Why arbitrarily
(15) ban a hundred plus year old technology that has
(16) revolutionized our economy, our quality of life
(17) and repeatedly made vehicles cleaner and
(18) affordable for everyone.

(19) To have the most positive impact
(20) on both the environment and the economy, we must
(21) fuel alternatives and innovation. We must not
(22) ban the engine technology itself. Let's not make
(23) the mistake of calling the race prematurely.

(24) Remember --

(25) MS. PIGGOTT: Thank you, that's

(1) three minutes.

(2) Alright, our next speaker which
(3) is our final speaker in panel 29 which is Jeffrey
(4) McMahon.

(5) JEFFREY MC MAHON:Hi, my name
(6) is Jeff McMahon. After 21 years as a university
(7) professor in Phoenix, Arizona, I returned to New
(8) York where I began my career as a performer and
(9) writer in the 1980s. It's going to be 88 degrees
(10) here tomorrow. It's early May in New York, not
(11) Phoenix. So climate change is very real here.

(12) I grew up in Los Angeles County
(13) in the 1960s and '70s so I know something about
(14) polluted air, I breathed it for most of my life,
(15) but I remember when thanks to the clean air act
(16) and other regulations, the air began to clear and
(17) gas mileage improved. Regulations work when we
(18) use them to prompt innovation and these proposed
(19) regulations are such a chance.

(20) My father grew up in Jersey City
(21) and lived in Los Angeles County as an adult. In
(22) the '70s, my mother and father moved to Houston
(23) as my father's job as a chemist was tightly tied
(24) to the oil industry so he also knew something
(25) about polluted air especially the damage done by

(1) particulates. Dad died from lung cancer and
(2) emphysema at the far too young age of 72, granted
(3) he was a former smoker, former because once he
(4) realized how damaging it was he stopped, but he
(5) couldn't stop breathing the air surrounding him,
(6) none of us can.

(7) I moved to New York City partly
(8) to be in an urban center where mass transit was
(9) an effective way of moving around but I also
(10) loved cars. It's a contradiction but it's one I
(11) have come to embrace through evolving technology.
(12) We can have cars without carcinogens that drive
(13) us to climate catastrophe, and these regulations
(14) help create the economic opportunities to make
(15) EVs affordable for all of us, but not if we
(16) continue to manufacture cars and trucks as they
(17) are currently constructed.

(18) We have to change our actions
(19) now. If a forest is on fire, a handheld
(20) extinguisher is of no value. We need responses
(21) scaled to climate reality and that's what this
(22) proposal does. Here in NY City, far too many
(23) kids have asthma because of tailpipe emissions
(24) from trucks. We are damaging their lives and our
(25) economy because of our diction and inaction. Can

(1) we please move beyond fossil fuel automobile
(2) adolescence and into an adult relationship with
(3) technology. Can we stop making excuses based on
(4) old industry, inequitable economics and obsolete
(5) technology.

(6) The proposed regulations let us
(7) see the road ahead. We no longer live in Henry
(8) Ford's America. Reality based regulations such
(9) as alternative one are a beginning, there is no
(10) alternative to planet earth for we humans. Thank
(11) you for listening to my testimony.

(12) MS. PIGGOTT: Thank you for your
(13) comments.

(14) Alright, ladies and gentlemen,
(15) we will move on with panel 30 where our first
(16) speaker is Ash Lauth.

(17) ASH LAUTH: That's correct.

(18) MS. PIGGOTT: Thank you, you
(19) have three minutes.

(20) ASH LAUTH: Thank you. Hello,
(21) my name is Ash Lauth. I am the national director
(22) of campaigns at Action For the Climate Emergency
(23) and thank you so much for hosting these hearings.
(24) ACE educates, inspires and supports young people
(25) to lead the fight for their future and I

(1) represent 1.1 million members of our youth action
(2) network. I am here today to urge the EPA to set
(3) the strongest possible climate pollution
(4) reduction targets to boldly address the climate
(5) crisis now and for all future generations.

(6) To effectively limit the
(7) transportation sector pollution driving climate
(8) change and urgently address the grave air quality
(9) problems effecting vulnerable communities, these
(10) rules need to be the strongest possible clean car
(11) and clean truck standards and they need to be
(12) finalized this year. According to the EPA's own
(13) analysis the transportation sector accounts for
(14) 27 percent of greenhouse gas emissions more than
(15) any other sector in the United States and is the
(16) fastest growing emitter of GHG emissions.

(17) Greenhouse gas emissions as we
(18) know contributes to climate change and
(19) existential threat and tailpipe pollution
(20) contains toxic compounds that pollute air quality
(21) and harm public health that include major health
(22) problems and even premature death.

(23) As someone living within five
(24) blocks of a major interstate highway, I know
(25) first hand the impact of tailpipe emissions.

(1) Everyday I wipe soot from my window, my garden
(2) beds, and this is soot that my neighbors and I
(3) breathe in everyday.

(4) I also know what a solution
(5) could look like. My home state of California
(6) passed a clean trucks act and the improvement on
(7) air quality and quality of life has been well
(8) documented. We need these rules at least as
(9) strong on the national level and by enacting
(10) clean, strong clean car standards, the EPA can
(11) take one step further to advance its commitment
(12) to environmental justice. The 72 million people
(13) living closest to truck routes and therefore most
(14) affected by freight pollution are more likely to
(15) be lower income people of color. Low income
(16) folks experience a disproportionate harm from
(17) dirty vehicle pollution leading to increased
(18) rates of asthma and other respiratory illness.

(19) Strong standards deliver massive
(20) emission reductions and life saving relief to
(21) front line communities. Lower tailpipe emissions
(22) and transition to zero-emission vehicles is a win
(23) for the American people and all those looking to
(24) protect public health and spur job creation,
(25) economic growth and family cost savings. The EPA

(1) safely estimated that the climate health and
(2) vehicle cost savings for Americans substantially
(3) can exceed \$1 trillion over the next three
(4) decades.

(5) So in conclusion the EPA needs
(6) to set the strongest possible pollution reduction
(7) targets to adequately address the climate crisis
(8) and transportation pollution. We need this for
(9) our communities and all future generations.

(10) Again on behalf of ACE's 1.1
(11) million young folks, I thank you for hosting
(12) these hearings.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Alright, our next speaker is Rob
(16) Simmons.

(17) ROB SIMONS: My name is Robert
(18) Simons. I am the President of Automotive
(19) Consulting Services. We are an engineering
(20) consulting firm that specializes in helping
(21) aftermarket parts manufacturers and small volume
(22) OEMs meet emissions standards and certify their
(23) products.

(24) As a consultant I work with many
(25) innovative different companies that are working

(1) on a variety of technologies developed to improve
(2) efficiency and reduce emissions. BEV is
(3) certainly one of these technologies, however
(4) other promising solutions such as hydrogen
(5) combustion, renewable natural gas and other
(6) biofuels offer real environmental benefits
(7) utilizing proven technologies and existing
(8) infrastructure.

(9) This proposed rule effectively
(10) picks a winner and as a result will stifle
(11) innovation. BEV technology and charging
(12) technology development is not on pace to meet
(13) mainstream consumer demands by the model year
(14) specified in the rule. Charging times remain
(15) long and is not an option for all consumers.

(16) Clean ICE technology has the
(17) advantage of utilizing existing infrastructure to
(18) quickly refuel vehicles while achieving near
(19) carbon neutrality when all factors are
(20) considered. The proposed rule will abandon the
(21) previously planned practice of net upstream
(22) accounting for CO2 produced by electricity
(23) production, and CO2 produced or captured by fuel
(24) production. This inaccurately inflates the
(25) benefits of BEV technology and detracts from the

(1) actual benefits of clean fuels. It is simply not
(2) intellectually honest.

(3) Another shortcoming to count
(4) BEVs as zero-emissions is amplified when we
(5) consider vehicle footprint, and while the new
(6) proposed rule adjusts how ICE vehicles are
(7) counted towards GHG fleet average it does nothing
(8) to consider massive BEVs that have enormous
(9) environmental impact from mile zero and use large
(10) amounts of energy to charge. There is no
(11) accounting for this in the proposed rule.

(12) Last if implemented, vehicle
(13) OEMs will be forced to spend billions of dollars
(14) to develop more BEV models and divest from R&D
(15) and other technologies. However, most American
(16) consumers are not ready to purchase them. The
(17) lack of home charging options and the absence of
(18) fast truly charging technology options make them
(19) unsuitable or unpalatable for many consumers.
(20) While a current ICE vehicle can be refueled in
(21) five minutes, there is not a solution to safely
(22) charge BEVs in less than 30 minutes. Even if we
(23) replaced every gas pump with a fast charger, we
(24) would need six times as many to meet demand,
(25) already more expensive to produce, these factors

(1) have the potential to hurt new car sales and
(2) jeopardize the financial disability of major auto
(3) makers, and repeat the excessive bail out from 15
(4) years ago. Thank you.

(5) MS. PIGGOTT: Thank you for your
(6) comments.

(7) The next speaker in list 30 is
(8) Shelly Sallee who we are not seeing on the Zoom
(9) platform this morning. Shelly, if you are on,
(10) and maybe a call in user press star nine. If you
(11) are on under a different name, please raise your
(12) hand using the raise your hand feature button at
(13) the bottom of the Zoom platform or send the host
(14) a chat message. Shelly Sallee.

(15) Okay. Moving on Beatrice
(16) Zovich.

(17) BEATRICE ZOVICH: Good morning.
(18) Thank you for having me. My name is Beatrice
(19) Zovich and I live in Philadelphia, Pennsylvania
(20) and I am testifying as a member of the
(21) Pennsylvania chapter of the Sierra Club.

(22) I am speaking today because I
(23) value protecting the cleanliness of our air and
(24) keeping our planet healthy and liveable for us in
(25) the present as well as future generations.

(1) I value nature and the
(2) tremendous gifts it provides to humanity and
(3) believe we have a duty to honor and respect it in
(4) turn by practicing good stewardship of the earth
(5) we all share.

(6) I have seen first hand the
(7) negative effects of the pollution, my partner
(8) suffers from asthma and that is directly linked
(9) to air pollution and has had breathing difficulty
(10) for all of his life. I am doing what I can to
(11) try to make a healthier planet by limiting my use
(12) of cars, composting food scraps and finding uses
(13) for items that might otherwise end in landfills.

(14) We have the opportunity right
(15) now to make a significant step forward for the
(16) planet and for the air we all breathe. In order
(17) to reach the goal, the EPA must finalize the
(18) strongest possible standards this year to
(19) accelerate the adoption of zero-emissions in
(20) cars, pickup trucks and delivery vans.

(21) The transportation sector makes
(22) up 30 percent of the climate pollution more than
(23) any other sector in the United States. Tailpipe
(24) pollution from passenger vehicles also contain
(25) health harming pollutants that can exacerbate

(1) asthma and are linked to lung disease and cancer.
(2) Cleaning up tailpipe pollution is one of the most
(3) important things the Biden administration can do
(4) to improve air quality and fight the climate
(5) crisis.

(6) In order for the U.S. to meet
(7) our Paris Climate Agreement goals, we need the
(8) strongest possible long term standards beyond
(9) model year 2026.

(10) Thank you for considering these
(11) standards and for your time and attention to my
(12) testimony.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Just a reminder ladies and
(16) gentlemen, please speak slowly and clearly. The
(17) last couple of speakers have been a little fast
(18) for our court reporter so if you could slow down
(19) just a little bit, we would appreciate it. If
(20) you run out of time, you can submit written
(21) comments through regulations.gov and we will
(22) repost that information for anyone who just
(23) joined the meeting.

(24) Okay. Our next speaker is
(25) Jessica Mengistab. I am going to send you a

(1) prompt again, just accept the prompt to promote
(2) to panelist.

(3) Okay. I see you moved over to
(4) be a panelist, that will allow you to unmute and
(5) turn on your camera if you choose.

(6) JESSICA MENGISTAB:Okay. Thank
(7) you. Good morning again, my name is Jessica
(8) Mengistab, last name spelled M-E-N-G-I-S-T-A-B.
(9) I am the program manager focusing on climate and
(10) clean energy advocacy with the Alliance of Nurses
(11) for Healthy Environments or ANHE. ANHE is the
(12) only national nurse organization focusing on the
(13) intersection of health and our environment and
(14) our mission is to promote healthy people and
(15) healthier environments.

(16) I am also a nurse specializing
(17) in postpartum and maternity or labor and delivery
(18) and I am located in Atlanta Metro area. Thank
(19) you for giving all the members of the public that
(20) you have been hearing from this week the
(21) opportunity to thank EPA for acting swiftly on
(22) proposed cleaner car standards and also like to
(23) urge EPA to create the strongest possible limits
(24) on vehicle pollution and finalize the standards
(25) as quickly as possible.

(1) Studies have continuously shown
(2) that communities nearer to high traffic zones
(3) like highways or ports have higher rates of
(4) cardiovascular and respiratory conditions and
(5) comes as no surprise that the same communities
(6) situated closest to high traffic zones with
(7) overwhelming levels of deadly tailpipe pollution
(8) have lower wealth or minority communities.

(9) The State of the Air Report has
(10) shown that overall air quality has improved
(11) across the country compared to previous years,
(12) however major disparities remain between air
(13) pollution exposures for white people and people
(14) of color.

(15) Fulton County received a D grade
(16) in this year's report and was ranked 47 worst for
(17) high ozone days out of 227 Metro areas
(18) nationwide.

(19) Nurses are aware of the health
(20) complications brought on or worsened by tailpipe
(21) pollution. It is exactly why we continue to
(22) speak up and advocate for the strongest possible
(23) clean car standards from model year 2027 and
(24) beyond to be passed as soon as possible.

(25) Prior to the recent proposal

(1) update and strengthening emission standards from
(2) cars and trucks, our organization gathered
(3) comments of support from over 300 nurses in all
(4) 50 states stressing the urgent need for the
(5) instatement of stronger and longer term, longer
(6) cleaner car standards as soon as possible

(7) Regardless of our progress to
(8) improve air quality, any level of unhealthy air
(9) is unacceptable and we can continue to address
(10) that by moving forward with stronger standards
(11) that will make gas vehicles cleaner and more
(12) efficient. Moving to pollution free vehicles and
(13) investing in clean transportation infrastructure
(14) will begin to address the long history of
(15) environmental racism and health inequity in this
(16) country that nurses know have direct impacts on
(17) community health.

(18) Thank you very much for
(19) listening to my testimony.

(20) MS. PIGGOTT: Thank you for your
(21) comments.

(22) Our next speaker is Trisha
(23) Dellolacono. I see you are on the Zoom platform
(24) this morning. I do need you to accept the prompt
(25) to promote to panelist. It should show up on the

(1) bottom of your screen.

(2) Now you should be able to unmute
(3) and turn your camera on if you choose.

(4) TRISHA DELLOLACONO:Good
(5) morning everyone, thank you for the opportunity
(6) to provide brief comments on the draft light-duty
(7) and medium-duty rule making. I am Trisha
(8) Dellolacono, federal policy director for
(9) CALSTART. CALSTART is a national non profit
(10) organization now also operating programs
(11) globally. We are a non profit consortium with
(12) more than 300 companies, agencies and
(13) organizations working together to support the
(14) transition to clean transportation including the
(15) associated public health and economic benefits it
(16) delivers.

(17) CALSTART is a member based
(18) organization, we are not a trade association, and
(19) not all members are fully aligned with our views
(20) on this proposed rule but share the perspective
(21) that clean transportation solutions are part of
(22) the strategies to protect communities, clean the
(23) air and address climate change.

(24) CALSTART appreciates the
(25) stringency that is set forth in alternative one

(1) in EPA's three proposed options however we
(2) strongly urge the EPA to adopt light-duty vehicle
(3) standards that are at least as strong as
(4) alternative one and provide a clear accelerated
(5) path to zero-emissions akin to ACC2. Strong
(6) standards maintain the recent momentum in the
(7) light-duty sector and provide a framework that
(8) compliments the historic incentives of IJA and
(9) IRA and consistent with the current market.

(10) Furthermore we strongly support
(11) efforts to close the footprint loop hole which
(12) incentivized auto makers to classify vehicles as
(13) light trucks resulting in larger less efficient
(14) vehicles that decrease overall safety for all
(15) users.

(16) It is vital that the strongest
(17) possible standards be finalized this year to lock
(18) in a rapid transition to zero carbon
(19) transportation system while providing a clear
(20) market signal. Providing market certainty
(21) through a rigorous standard built on the momentum
(22) generated by IJA, IRA, ACC2 and unlocks greater
(23) deployment of capital as evidence by the more
(24) than \$200 billion in investments within the past
(25) two years.

(1) We look forward to working with
(2) the EPA to be a resource as it achieves this
(3) critical legislation.

(4) MS. PIGGOTT: Thank you for your
(5) comments.

(6) Alright, our final speaker for
(7) panel 30 is David Myers.

(8) DAVID MYERS: Good morning. I
(9) appreciate the draft standards that the EPA has
(10) promulgated and I also appreciate this
(11) opportunity for citizens to have input on the
(12) vehicle pollution standards.

(13) My name is David Myers,
(14) M-Y-E-R-S, I live in Sedona, Arizona and I am a
(15) member of Moms Clean Air Force. I strongly
(16) support the EPA's proposed clean cars and light
(17) medium-duty truck standards and urge EPA to
(18) finalize these standards in 2023. We must
(19) protect the health of our citizens and our planet
(20) by reducing vehicle emissions.

(21) I have had in the past numerous
(22) allergies to airborne particulates and I have
(23) asthma. Both are under good control but I
(24) remember with dread the times of gasping for air
(25) and not being able to sleep at night. As has

(1) been reported, asthma is the number one chronic
(2) disease effecting children and 26 million
(3) children and adults struggle with asthma.

(4) We must eliminate airborne
(5) greenhouse gases and particulate matter for their
(6) benefit. Over one-third of U.S. citizens live in
(7) places with unhealthy air pollution so let's make
(8) the air cleaner for peoples' breathing.

(9) Passenger cars and light medium duty trucks
(10) account for 58 percent of vehicle created dirty
(11) air.

(12) Greenhouse gases are fueling our
(13) climate disasters, we are seeing more of these
(14) tragic events and it's time to eliminate a major
(15) source of contributions to that. With our 100
(16) plus degrees days increasing in Arizona, high
(17) temperature are a big health problem and fatality
(18) risk in Arizona. The very young, the pregnant,
(19) the elderly, the disabled, low wealth people and
(20) people of color may be particularly vulnerable to
(21) health impacts and other harms associated with
(22) climate change. If we don't mitigate climate
(23) change, future generations will have to contend
(24) with three times as many serious climate events
(25) as occurred 20 years ago.

(1) In conclusion I am urging EPA to
(2) adopt the strongest possible pollution
(3) protections for auto and light and medium-duty
(4) vehicles. Ford and GM has set the table for you
(5) by committing to market only zero-emission
(6) vehicles by 2035 which includes light and
(7) medium-duty trucks.

(8) Please protect our health and
(9) our planet's future by finalizing the draft
(10) proposed standards by the end of 2023. Thank you
(11) for taking my testimony.

(12) MS. PIGGOTT: Thank you for your
(13) comments.

(14) Alright, we will now move onto
(15) panel 31 where our first speaker is Walter
(16) Englert.

(17) WALTER ENGLERT: Good morning my
(18) name is Walter Englert. I live in Portland
(19) Oregon, and I am testifying as a private citizen
(20) deeply concerned about climate change and the
(21) environment.

(22) I strongly support the EPA's
(23) emissions proposal for new light and medium-duty
(24) vehicles to be phased in over the period 2027 to
(25) 2032 and I urge you to adopt the strongest

(1) possible standards.

(2) I am testifying as a citizen,
(3) parent and grandparent because I believe the only
(4) chance that future generations of living full and
(5) flourishing lives is if we reduce our carbon
(6) emissions in the next few decades.

(7) This proposed set of EPA
(8) standards is a significant step in mitigating
(9) carbon emissions and reducing catastrophic
(10) climate change.

(11) I support the new emission
(12) standards proposed by the EPA for four reasons.
(13) The standards are strong, achievable, flexible
(14) and essential. First the proposed standards are
(15) strong, they will greatly reduce the auto
(16) manufacturers light and medium-duty vehicles,
(17) fleet CO2 levels compared to 2026 standards.
(18) This will keep us on track to becoming fully
(19) carbon neutral in the decades ahead.

(20) Second, the proposed standards
(21) are achievable. Auto manufacturers will be able
(22) to draw on their experience producing low
(23) emissions gas powered vehicles and to continue to
(24) improve carbon free electric vehicles that are
(25) the future of the transportation sector.

(1) Third, the proposed standards
(2) are flexible. They allow auto manufacturers to
(3) offer a variety of efficient vehicles giving them
(4) flexibility about how to meet these new emission
(5) standards and the ability to offer a range of
(6) lower polluting vehicles to their customers.

(7) Fourth, the proposed standards
(8) are essential. Unless we act now with strong
(9) emissions proposals like this one, we will never
(10) bring our carbon emissions down to the level we
(11) need to to avoid the worse effects of climate
(12) change and to ensure that future generations are
(13) able to live full and rich lives.

(14) To conclude I commend the EPA
(15) for proposing these standards and urge them to
(16) set the strongest emission standards possible.
(17) Thank you for this opportunity to testify.

(18) MS. PIGGOTT: Thank you for your
(19) comments.

(20) Our next speaker in panel 31 is
(21) Yeh-Tang Huang.

(22) YEH-TANG HUANG: Can you hear
(23) me?

(24) MS. PIGGOTT: Go ahead. You
(25) have three minutes.

(1) YEH-TANG HUANG: My name is
(2) Yeh-Tang Huang, and I am a clean vehicles fellow
(3) at the Natural Resources Defense Council. I am
(4) speaking today to urge EPA to adopt the strongest
(5) possible rules to reduce vehicle pollution.

(6) As transportation is the largest
(7) source of greenhouse gas emissions in the U.S.
(8) ensuring that we accelerate the transition to a
(9) zero-emission future is imperative to prevent the
(10) worst effects of climate change from occurring.
(11) A zero-emission future is not just good for the
(12) climate though, it will also improve the air
(13) quality and health.

(14) According to the American Lung
(15) Association, the transition to zero-emission
(16) transportation and electricity generation could
(17) cumulatively prevent 110,000 premature deaths,
(18) 2.78 million asthma attacks and 13.4 million lost
(19) work days from 2020 to 20520.

(20) Currently rapid electrification
(21) is the most effective and practical way to reduce
(22) emissions from the U.S. light-duty vehicle fleet.
(23) According to the International Council on clean
(24) transportation the lifecycle greenhouse gas
(25) emission of an average sized medium battery

(1) electric vehicle registered in 2021 are 60 to 68
(2) percent lower than a comparable gasoline vehicle
(3) in the U.S. These emission reductions are
(4) expected to continue to increase as electric grid
(5) gets cleaner.

(6) Additionally, the auto industry
(7) is poised for the transition to an electric
(8) vehicle future. According to Atlas public policy
(9) auto makers have pledged more than \$210 billion
(10) towards zero-emission vehicle technology and many
(11) have also committed to reaching 100 percent
(12) electric vehicle sales in the near future and
(13) customers increasingly want these vehicles as
(14) well.

(15) In 2022 electric vehicle market
(16) share reached 7.34 percent nationally. The
(17) strongest possible standards from EPA would
(18) ensure that the trend towards electrification
(19) actually culminates in a fully electric
(20) light-duty future as soon as possible.

(21) Charging infrastructure to
(22) support electric vehicles also continues to
(23) increase. There are currently over 53,000
(24) locations for public charging infrastructure in
(25) the U.S. with over 136,000 public charging ports

(1) available to drivers and more charging
(2) infrastructure will be coming on-line in the U.S.
(3) within the next couple of years as a result of
(4) supported policy such as infrastructure
(5) investments and job acts.

(6) The U.S. is primed for the
(7) transition towards zero-emissions vehicles and in
(8) order for U.S. residents to realize these
(9) benefits as soon as possible it is imperative
(10) that EPA adopt the strongest standards possible.
(11) Thank you very much for your time today.

(12) MS. PIGGOTT: Thank you for your
(13) comments.

(14) Alright, our next speaker in
(15) panel 31 is Keith Puntennery.

(16) KEITH PUNTENNERY: My name is
(17) Keith Puntennery. I am a retired IRS attorney,
(18) disabled veteran, father and grandfather. Since
(19) 1974, I manage and now own 600 acres of central
(20) Iowa's best farmland. Since the 1980s, I
(21) invested over a million dollars of infrastructure
(22) to protect my farmland because of climate change.
(23) In Iowa, the past 30 years have had the wettest
(24) ever recorded and the driest since Great
(25) Depression.

(1) I am surrounded by five ethanol
(2) plants that market corn. As a private citizen, I
(3) ask EPA to finalize option one to make cars and
(4) trucks cleaner and efficient. Twenty percent of
(5) Iowa soils have disappeared in the loss 40 years.
(6) Under the EPA proposal one and a new U.S. farm
(7) bill we should be returning marginal cropland to
(8) hay, oats, pasture and habitat that is essential
(9) as we all work together to protect natural soil
(10) health, control bad insects, pathogens, fungi and
(11) support preventing future pandemics. This
(12) promotes to more natural diet for livestock since
(13) Iowa is one of two for U.S. protein production.

(14) This also supports clean air and
(15) water, decreases flooding and soil loss, lowers
(16) particulates and sequesters carbon naturally.
(17) Iowa is the number one state per capita for
(18) cancer, asthma and other childhood related
(19) related diseases closely follow as ethanol, coal
(20) fired, meat packing and other dirty industrial
(21) jobs are cited to labor forces in our rural 99
(22) counties.

(23) Transportation will always be a
(24) big issue for Iowa. We have 24 million of the
(25) U.S. 280 million farmland acres. Long distance

(1) driving for food, jobs, childhood education are
(2) part of rural life.

(3) My home town of Boone has had as
(4) many as 76 trains a day going through it, some
(5) with six Diesel engines and railcars carrying
(6) hazardous material. The U.S. is currently losing
(7) 200,000 farmland acres per day to development.
(8) This increases all transportation issues and
(9) decreases U.S. food security.

(10) U.S. population will add 100
(11) million to feed, one billion worldwide by 2100.
(12) Insanity is the definition of continuing the same
(13) path as there is more massive climate change
(14) events are coming. I drive a 2013 hybrid. John
(15) Deer will add 25 to 75 horsepower all electric
(16) tractors by 2025. By 2035 to 2050 on our current
(17) climate change path, Iowa will experience another
(18) seven to ten days of 85 to 100 degrees of crop
(19) killing heat, plus drought, major weather events,
(20) etc. I could lose 30 percent of my current crop
(21) production in revenue, that is not sustainable as
(22) a producer for U.S. and world security.

(23) EPA option one and the car and
(24) truck rules are imperative as we all continue to
(25) adopt to a new climate reality. Thank you for

(1) this time.

(2) MS. PIGGOTT: Thank you for your
(3) comments.

(4) Alright, our next panelist is
(5) Kim Anderson. Kim, I see that you called in.
(6) You are going to receive a prompt from me asking
(7) you to unmute and you will press star six.

(8) KIM ANDERSON: Okay. Can you
(9) hear me?

(10) MS. PIGGOTT: Yes, we can hear
(11) you and I'll come on Kim when you have 30 seconds
(12) remaining to give you a prompt.

(13) KIM ANDERSON: Okay. Thank you.

(14) MS. PIGGOTT: Go ahead, you have
(15) three minutes.

(16) KIM ANDERSON: Thanks. I am Kim
(17) Anderson with the Evangelical Environmental
(18) Network and I thank you for the opportunity to
(19) testify today.

(20) I live in a small Pennsylvania
(21) town that has about 3,000 residents but the main
(22) road sees an average of about that many cars a
(23) day and is within one mile of a road which sees
(24) 20,000 cars a day.

(25) While living here, I have

(1) noticed that a black film appears on my car. I
(2) didn't experience this even when living in the
(3) city of Cleveland. While cleaning my car, I
(4) wonder what is this doing to my children's
(5) hearts, minds and lungs. Is there a black film
(6) on their lungs from breathing, playing, biking
(7) and running here.

(8) Tailpipe pollution contains
(9) toxic compounds that have health impacts on
(10) people especially children including increased
(11) risk of asthma attacks, strokes, heart attacks,
(12) cancer and premature deaths. Pollution has also
(13) been linked with dementia and I live with and
(14) care for my parents and have watched my dad go
(15) from a brilliant research scientist with 32
(16) patents to his name to yesterday struggling for
(17) the work rake.

(18) In other words, if we continue
(19) moving that direction we seem to be, my children,
(20) my parents and 73 million children living in the
(21) United States are not safe. The good news is
(22) that there is something we can do about it today
(23) without harming businesses or increasing car
(24) prices.

(25) The EPA's proposed standards is

(1) a strong move in directing this. Car
(2) manufacturers already have the technology to meet
(3) strong standards and analyses have shown that
(4) fully zero-emission cars will be cheaper to buy
(5) and maintain than gas powered cars within the
(6) timeframe of these standards.

(7) My face turns me verses like
(8) Jeremiah 29:11 which says for I know the plans I
(9) have for you declares the Lord, plans to prosper
(10) you and not to harm, plans you to give you hope
(11) in the future. This is made more difficult by
(12) heart, mind and lung damaging pollution.

(13) This proposal is a good start
(14) and the EPA needs to finish the job by finalizing
(15) the strongest possible standards this year. We
(16) need to continue to make gas cleaner and more
(17) efficient. Alternative one is good but we need
(18) to increase the pace after 2030 to stay on the
(19) route to zero.

(20) Even here in my small town our
(21) children will benefit from reduced standards that
(22) will provide much needed relief from the burden
(23) of air pollution.

(24) I thank the administration for
(25) acting quickly on clear cars but urge the EPA to

(1) create the strongest possible limits on vehicle
(2) pollution.

(3) Let's make the right choice and
(4) give them a bright hope in the future that God
(5) wants for them and us. Thank you.

(6) MS. PIGGOTT: Thank you for your
(7) comments.

(8) Alright, our next speaker in
(9) panel 31 is Marcus Cole

(10) MARCUS COLE: May I begin?

(11) MS. PIGGOTT: Yes, go ahead.
(12) You have three minutes.

(13) MARCUS COLE: Thank you for the
(14) opportunity to testify. My name is Marcus Coal
(15) and yes, I do serve as the Director of Church
(16) Engagement in Outreach at the Evangelical
(17) Environmental Network. But what compels me to be
(18) here today with you all is I am a husband, a
(19) neighbor and father.

(20) Just this past week I registered
(21) my youngest daughter for kindergarten, if you can
(22) believe it, her graduating class is 2036. 2036!
(23) The proposals we are talking about today isn't
(24) about some far off distant future, it's about the
(25) right now reality for our children.

(1) And so I do want to thank this
(2) administration for acting swiftly on clean cars
(3) but I do urgently urge the EPA to create the
(4) strongest possible limits on vehicle pollution.
(5) Here in Georgia where I live these standards will
(6) provide much needed relief from the burden of
(7) diesel fumes, climate impacts and air pollution.

(8) Vehicle manufacturers like KIA
(9) and Hyundai which are right here in Georgia have
(10) the technology to meet strong standards and have
(11) made strong commitments to go more zero-emissions
(12) with their vehicles.

(13) I am here again because of my
(14) little daughters, yes, and also the little
(15) daughters and sons of others. My Christian
(16) values taught me to love God and love my neighbor
(17) as myself, and I do believe that includes my
(18) neighbors' children, and according to the EPA's
(19) own analysis, the transportation sector accounts
(20) for 27 percent of greenhouse gas emissions more
(21) than any other sector in the U.S. It's the
(22) fastest growing emitter of greenhouse gases.

(23) Exposure to air pollution can
(24) lead to health problems like increased risk of
(25) asthma, heart attacks, strokes and heat strokes

(1) and cancer as well as premature deaths.

(2) So yes, I applaud the EPA and
(3) the Biden administration for taking a strong step
(4) forward to address light and medium-duty
(5) pollution driving climate change, however, I must
(6) ask that you effectively limit the transportation
(7) sector pollution driving climate change and
(8) urgently address the grave air pollution
(9) effecting vulnerable communities.

(10) Here is how. Specifically
(11) alternative one is good initially but we need to
(12) increase the pace after 2030 to stay on the route
(13) to zero. We need to continue to make gas cars
(14) cleaner and more efficient. We need cleaner car
(15) standards that are ambitious through the entire
(16) proposed model years and give manufacturers the
(17) right signal that pushes them to meet the goal
(18) because again this isn't future. My daughter
(19) graduates in 2036. We are already planning for
(20) that, we should be planning tougher standards for
(21) our cars as well.

(22) We need this, our children need
(23) this, all of creation needs this. Thank you for
(24) your time.

(25) MS. PIGGOTT: Thank you for your

(1) comments.

(2) Our next speaker is Cindy Le.

(3) CINDY LE: Can you hear and see
(4) me alright?

(5) MS. PIGGOTT: Yes, go ahead.
(6) You have three minutes.

(7) CINDY LE: Hello, my name is
(8) Cindy Le. I am 20 years old and I am speaking to
(9) you all today as a private citizen of Allegheny
(10) County as well as on behalf the Action for the
(11) Climate Emergency where I serve on the youth
(12) advisory board.

(13) I want to thank this committee
(14) for taking initiative to advance the progress on
(15) emission reduction for vehicles but as a young
(16) person who is inheriting the burden of a climate
(17) crisis my generation did not cause, I must
(18) emphasize the necessity of strict regulations on
(19) emissions for cars and trucks in order to protect
(20) our future.

(21) I reside in the city of
(22) Pittsburgh where air quality issues have plagued
(23) our community for decades now. Pittsburgh places
(24) in the top ten most polluted cities in America
(25) for particle pollution and Allegheny County ranks

(1) in the top one percent of counties in the U.S. at
(2) risk for cancer from air pollution.

(3) It is an undescrivable feeling
(4) to wake up and immediately check the AQI index to
(5) see it's in the red zone for the third time that
(6) week and walk to class knowing that the air you
(7) breathe is actively causing you long term harm.

(8) The sentiment is especially felt
(9) by income low communities of color that are
(10) disproportionately effected by poor air quality
(11) and experience higher rates of heart and lung
(12) disease, asthma, diabetes, cancer and other
(13) chronic illnesses.

(14) Our air is quite literally
(15) killing us and will continue to do so unless
(16) action is taken to combat the forces of carbon
(17) emission and combat the climate crisis. Because
(18) public transit is not widely affordable or
(19) accessible in Pittsburgh, we see lots of
(20) light-duty vehicles crowding our highways and
(21) interstates. About a third of air pollution
(22) comes from transportation and that percentage
(23) will likely increase if we do not adopt stronger
(24) standards for cars and trucks.

(25) While the EPA's proposal is

(1) well-grounded under the Clean Air Act authority,
(2) the rule must be finalized to meet the strongest
(3) possible standards and action must be taken as
(4) soon possible. The longer we wait, the more
(5) responsible we are for the prolonged destruction
(6) of our planet and the communities we hurt in
(7) doing so.

(8) Moving towards zero-emission
(9) fleet is the obvious solution towards a more
(10) sustainable and equitable world that protects
(11) people first and foremost. Thank you for your
(12) time.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Alright, our seventh and final
(16) speaker in panel one is Cere Begulki (ph).

(17) CERE BEGULKI: Alright, thank
(18) you for the opportunity to testify. My name is
(19) Cere Begulki (ph) and I am here today as a
(20) private citizen. I thank this administration for
(21) acting swiftly on clean cars but urge the EPA to
(22) create the strongest possible limits on
(23) heavy-duty vehicle pollution.

(24) Vehicle manufacturers have the
(25) technology to meet strong standards and have made

(1) strong commitments to get to more zero-emissions
(2) vehicles on the road. It's time to hold
(3) manufacturers responsible to their pledges as
(4) well as act on our own pledges towards climate
(5) action.

(6) As a student in climate science
(7) I study how certain climate extremes will become
(8) more frequent in the future but I also know that
(9) the science says we still have time to prevent
(10) greatest impacts of climate warming if we act now
(11) to reduce emissions as swiftly as possible.

(12) The transportation sector
(13) accounts for 27 percent of greenhouse gas
(14) emissions more than any other sector in the U.S.
(15) Every new vehicle sold today could be on the road
(16) for the next two to three decades. If we are
(17) serious about protecting our communities and
(18) cutting dangerous pollution, we need to start
(19) acting now.

(20) Beyond the climate benefits of
(21) vehicle pollution, the public health impacts of
(22) cleaning air from vehicle exhaust will be
(23) numerous. Having lived in northern Utah the last
(24) couple of years, I have experienced times of such
(25) bad air quality due to pollutants that get

(1) trapped in the mountain valleys range, that I
(2) recall days that Salt Lake City ranked as having
(3) the worst air quality in the world.

(4) While sources of pollutants in
(5) northern Utah come from a variety of sources
(6) including wild fire smoke and dust coming off the
(7) drying lake bed of the Great Salt Lake,
(8) pollutants from air exhaust remain the most
(9) prevalent and year round source of air pollution.

(10) While we do not have the power
(11) to fully prevent wild fire activity or dust
(12) coming off the Great Salt Lake we do have the
(13) ability to make the air significantly better by
(14) reducing car emissions. Making limits on
(15) heavy-duty vehicle pollution will have a tangible
(16) and quick impact on improving the health and
(17) quality of peoples lives across the U.S. and in
(18) particular Utah.

(19) In conclusion please support
(20) alternative one and in the long term impose the
(21) strongest possible multi-pollutant emission
(22) standards for model years 2027 and later. Thank
(23) you.

(24) MS. PIGGOTT: Thank you for your
(25) comments.

(1) Alright, moving onto panel 32.
(2) Our next speaker is Tricia Yacavone-Biagi.

(3) TRICIA YACAVONE-BIAGI: Good
(4) morning. My name is Tricia Yacavone-Biagi. I am
(5) a community volunteer from Shelburne,
(6) Massachusetts. I am also a former public health
(7) professional and I recently received my master of
(8) science in security and resilient studies from
(9) Northeastern University.

(10) My focus on community resilience
(11) against threats to human security inevitably lead
(12) to research into what I consider to be the most
(13) profound threat to humanity, the climate
(14) emergency. I can say with 100 percent certainty,
(15) we must reduce our greenhouse gas emissions
(16) immediately and when I say immediately I mean
(17) yesterday.

(18) We must maximize all available
(19) emission reductions and accelerate the transition
(20) to zero-emissions of all vehicles, not just
(21) passenger cars. I have witnessed first hand what
(22) happens when extreme weather events disrupt
(23) communities and it's not just the communities who
(24) are immediately impacted by the weather events
(25) but it's also the communities who receive the

(1) people fleeing those events.

(2) I know this from serving as a
(3) local volunteer in Texas as part of the response
(4) to Hurricanes Katrina and Rita. I walked through
(5) the Austin convention center trying to help
(6) people who were living out of suitcases, duffles
(7) and plastic bags they threw together as they
(8) escaped the rising waters along the Gulf coast.
(9) I gave directions to a man and his teenage son
(10) who were trying to find lodging farther and
(11) farther north as they drove their car filled to
(12) the brim with their belongings from New Orleans.

(13) Climate refugees, whether they
(14) are fleeing wild fires in the west, hurricanes on
(15) the Gulf coast or rising seas in the east are
(16) becoming a fundamental aspect of how we view
(17) human security in the 21 century and indeed a
(18) whole discipline of climate security has arisen
(19) as a result.

(20) There is nothing that the
(21) climate emergency fails to effect and we must do
(22) whatever we can to mitigate its impact.

(23) Greenhouse gas emissions have fundamentally
(24) altered our climate and now that we know this, we
(25) are responsible for correcting it. One way to

(1) make a dent in emissions is through implementing
(2) more stringent standards for all vehicles
(3) including trucks such as the ever popular SUV.

(4) Now while I would prefer to make
(5) clean energy electrified and public
(6) transportation the norm in the U.S. as it is in
(7) other countries, I realize we have a car driven
(8) culture that will be difficult to unravel so we
(9) need to find other ways to lower our emissions.
(10) Increasing emission standards for trucks would
(11) absolutely be part of the solution. Thank you
(12) for your time this morning.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Our next speaker in panel 32 is
(16) Erandi Trevino.

(17) ERANDI TREVINO: Good afternoon,
(18) my name is Erandi Trevino. I am the Texas state
(19) coordinator for Moms Clean Air Force and I live
(20) in southeast Houston.

(21) I would like to voice my support
(22) for strong standards for light and medium-duty
(23) vehicles for model years 2027 and beyond, and to
(24) urge the EPA to finalize these important
(25) protections as quickly as possible.

(1) These protections are an
(2) important step forward in protecting our families
(3) from dangerous tailpipe pollution which is a
(4) significant contributor to climate change and
(5) other harmful health impacts. We need strong
(6) standards to better protect children, people with
(7) asthma, older adults and other vulnerable groups
(8) from the harmful effects of climate change and
(9) air pollution.

(10) Parents across the country want
(11) to see a rapid transition to zero-emitting trucks
(12) to provide a stable climate and cleaner air for
(13) our children and our communities. Reducing
(14) greenhouse gas emissions is critical to
(15) addressing the climate change impacts on Houston
(16) and Harris County as a whole. Harris County
(17) where I live sees some of the highest occurrences
(18) of extreme weather events in the entire country.
(19) We grew up with hurricanes but we now have to
(20) deal with freezes and even tornadoes.

(21) During Hurricane Harvey, so much
(22) water poured into our communities my mom's home
(23) flooded and many people including my niece had
(24) PTSD for years. In the aftermath of winter storm
(25) Yuri, many people including myself struggled to

(1) recover from the emotional and financial strains
(2) that came with it.

(3) My youngest niece is three and
(4) she has severe allergies and breathing problems
(5) that disrupt her sleep and you can constantly
(6) hear it in her breath. My seven-year-old niece
(7) has eczema and at her young age has anxiety about
(8) extreme weather events.

(9) My mother and I both have
(10) Fibromyalgia and many other chronic conditions.
(11) We experience shortness of breath, pain, and
(12) heavy pressures on our chest, all of these things
(13) make it hard for us to just get by through the
(14) day.

(15) My multi-generational home is
(16) surrounded on all four sides by sources of
(17) pollution, one of which -- two of which are two
(18) highways, five miles away we have Houston ship
(19) channel and next door we have an 18 wheeler
(20) parking lot. According to the EPA more than 45
(21) million people in the U.S. live within 300 feet
(22) of a major roadway or transportation facility.
(23) More than 40 percent of Americans over 135
(24) million people live in places with unhealthy
(25) levels of air pollution.

(1) Moving is not the solution. The
(2) solution is to address the root of the problem.
(3) So once again I urge the EPA to finalize the
(4) strongest possible standards this year to reduce
(5) --

(6) MS. PIGGOTT: That's time.
(7) Thank you for your comments.

(8) Our next speaker in panel 32 is
(9) Dan Byers.

(10) DAN BYERS: Thank you, Dan Byers
(11) on behalf of the U.S. Chamber of Commerce. We
(12) appreciate the opportunity to provide comments on
(13) the that proposed rule.

(14) The chamber and its members are
(15) proud of their role as a collaborative partner
(16) with EPA and state regulators to develop and
(17) deploy advanced technology in vehicles that
(18) contributed to America's remarkable progress on
(19) air quality and emissions reduction. This is a
(20) primary reason why we strongly support the
(21) continued transition to lower carbon fuels in
(22) vehicles and are comitted to partnering with EPA
(23) and other stakeholders to make the effort a
(24) success.

(25) For regulatory measures in this

(1) area to be successful, they must be
(2) technologically achievable, flexible, legally
(3) durable and attentive in market and real world
(4) considerations that effect consumer interest in
(5) electric vehicles.

(6) The chamber has strong concerns
(7) that the proposed rule fails to meet the criteria
(8) going to far too fast particularly in light of
(9) challenges associated with outside the vehicle
(10) factors that are critical to facilitating broad
(11) consumer support for EVs. These include
(12) underdeveloped and unsecure supply chains for EV
(13) batteries, successfully addressing shortfalls and
(14) critical mineral supply chains for EV
(15) manufacturing will take several years even under
(16) the most optimistic scenarios. This is the major
(17) reason why the rule's front loaded ramp rate is
(18) not realistically achievable and could in fact
(19) exacerbate energy security issues associated with
(20) China's dominance of global EV supply chains.

(21) Too inadequate charging
(22) infrastructure which is why they are regarded to
(23) be a prerequisite for consumer acceptance of EVs.

(24) MS. PIGGOTT: Dan, I apologize
(25) for the interruption. We will pause the timer.

(1) We do need you to slow down just a little bit for
(2) the court reporter.

(3) DAN BYERS: Sorry. The chamber
(4) encourages EPA to work with all stakeholders to
(5) ensure the phase in timeline with the rule making
(6) corresponds to sufficient EV charging
(7) infrastructure build out.

(8) Three, impacts on grid
(9) reliability and resiliency, EPA's own estimates
(10) show that deployment of EVs under the rule would
(11) increase power demand by 3.5 percent in 2040,
(12) this presents a major challenge for an
(13) electricity system facing its most difficult
(14) reliability concerns in decades. Importantly
(15) EPA's modeling of the vehicle rule does not
(16) account for the just release power plant rule
(17) that is expected to accelerate closure of
(18) dispatchable electricity generation and vice
(19) versa.

(20) For truly informed decision
(21) making the chamber urges EPA to model the
(22) combined impact of both rules as well as the
(23) recently proposed rule on heavy-duty vehicles.

(24) Finally the chamber is concerned
(25) that a number of EPA assumptions impacting

(1) vehicle technology cost and sales are overly
(2) optimistic. This could lead to an
(3) underestimation of compliance cost which in turn
(4) mean the rule underestimates negative impacts on
(5) sales and auto sector employment over while
(6) overestimating emission reduction.

(7) In summary, the chamber urges
(8) EPA to revise the proposal to reflect a more
(9) realistic pathway for the EV transition that does
(10) not exceed President Biden's own stretch goal 40
(11) to 50 percent EV sales by 2030. Thank you.

(12) MS. PIGGOTT: Thank you for your
(13) comments.

(14) Alright, our next speaker in
(15) panel 32 is Sarah, is it Bucic?

(16) SARAH BUCIC: Can you hear me
(17) okay? Thank you so much. My name is Sarah
(18) Bucic, B-U-C-I-C, thank you for the opportunity
(19) to provide comments today.

(20) I have been a registered nurse
(21) for over 20 years and I am here today with the
(22) Alliance of Nurses For Healthy Environments,
(23) ANHE. We are the only national nursing
(24) organization focused solely on the intersection
(25) of health and the environment and we support EPA

(1) setting new multi-pollutant standards for light
(2) and medium-duty vehicles and we urge EPA to make
(3) the rule even stronger and finalize it this year.

(4) As a long time Delawarian, most
(5) of the population of my state resides within
(6) close proximity to the dense traffic of I-95,
(7) 295, 495 and Route 1. The 24 miles of I-95 that
(8) go through my state has over 230,000 vehicles per
(9) day. While many associate my state with its
(10) beaches, there is also significant traffic along
(11) our state especially in the summer heat.

(12) In just one month in 2017 the
(13) often congested Route 1 carried more than 4.5
(14) million vehicles through tolls in Middletown and
(15) Dover through just the month of July.

(16) The American Lung Association
(17) states that more than one in three Americans are
(18) living in communities with unhealthy air and New
(19) Castle County was ranked a D for ozone. We know
(20) that vehicle emissions contribute to ozone
(21) formation and that ground level ozone makes air
(22) quality worse. We know people of color are over
(23) three times more likely to be breathing the most
(24) polluted air than white people.

(25) Transportation is the single

(1) biggest source of greenhouse gas emissions in the
(2) U.S. and according to the American Lung
(3) Association, a nationwide transition to
(4) zero-emission light-duty, medium and heavy-duty
(5) vehicles coupled with the transition of
(6) zero-emission electricity would result in
(7) presenting 110,000 premature deaths nationwide
(8) from 2020 to 2050.

(9) As a former psychiatric nurse I
(10) feel it's important to point out the harmful
(11) impacts of air pollution on childhood cognitive
(12) development and as a parental of a child who
(13) experienced asthma and as a nurse myself, I can't
(14) describe the powerlessness of knowing that the
(15) pollution that contributes to asthma is largely
(16) beyond individual peoples' control.

(17) This is why EPA must set strong
(18) standards for health protections and I am
(19) counting on EPA standards to capture all possible
(20) emission reductions. I urge EPA to waste no time
(21) in finalizing this proposal. It's great start.
(22) Cutting particle pollution from gasoline vehicles
(23) will save lives and we can't miss out on the
(24) opportunity to protect health particularly for
(25) the most vulnerable populations. Thank you.

(1) MS. PIGGOTT: Thank you for your
(2) comments.

(3) Alright our next speaker is Andy
(4) Su.

(5) ANDY SU: Hello, my name is Andy
(6) Su. Thank you for the opportunity to testify
(7) today on behalf of Environmental Defense Fund and
(8) our more than two million members.

(9) The transportation sector is the
(10) largest U.S. source of greenhouse gas emissions
(11) and responsible for significant NOx and
(12) particulate matter emissions. Protecting final
(13) EPA standards are critical to reducing that
(14) pollution and saving lives especially in
(15) communities of color and low income communities
(16) which are exposed to a disproportionate amount of
(17) vehicle pollution.

(18) EPA's proposal is feasible, cost
(19) effective and a vital step forward. We urge the
(20) agency to finalize the most protective
(21) multi-pollutant standards possible that are
(22) consistent with and build from the proposals
(23) helping to ensure at least two-thirds of new
(24) light-duty vehicles and at least 40 percent of
(25) new medium-duty vehicles sold in 2032 are

(1) zero-emitting, putting us on a path to
(2) zero-emission new vehicles in 2035.

(3) This should be paired with a
(4) voluntary but once chosen by manufacturer
(5) enforceable leadership pathway that would deliver
(6) nationwide ZEV levels consistent with advanced
(7) clean car two standards and exceed pollution
(8) reductions associated with EPA's proposals.
(9) Protective standards must also ensure reduction
(10) of harmful air pollution from remaining internal
(11) combustion and plug in hybrid electric vehicles,
(12) and EDF strongly supports EPA's proposal to adopt
(13) protective, NOx and PM standards that will result
(14) in the use of gasoline particulate filters.

(15) Standards of this level are
(16) imminently achievable thanks to manufacturer and
(17) fleet investments and commitments, historical
(18) federal investments rapidly declining ZEV cost
(19) and state policy like advanced clean cars two and
(20) advanced clean trucks rules which have already
(21) been adopted by half a dozen other states.

(22) The historic investments in the
(23) Inflation Reduction Act and Bipartisan
(24) Infrastructure Law have helped launched an
(25) American electric vehicle manufacturing

(1) renaissance.

(2) The analysis also finds that
(3) already announced U.S. production facilities will
(4) be capable of manufacturing 4.3 million new ZEVs
(5) annually by 2036 worth approximately one-third of
(6) all new vehicles sold last year. Including the
(7) benefits of the IRA, the purchaser of model year
(8) 2025 mid size battery electric car can see
(9) upfront savings of \$7,000 compared to a similar
(10) gasoline car with the saving of \$20,000 over the
(11) life of the EV. Also --

(12) MS. PIGGOTT: That's time.
(13) Thank you for your comments.

(14) Alright, our next speaker in
(15) panel 32 is Reem Rayef.

(16) REEM RAYEF: My name is Reem
(17) Rayef. I am a senior policy advisor at the Blue
(18) Green Alliance, a national partnership of labor
(19) unions and environmental organizations.

(20) The study of advancement of
(21) vehicle standards is important for a number of
(22) reasons already expressed in this hearing.
(23) Reducing emissions from transportation is an
(24) essential part of addressing climate change and
(25) advancing environmental justice but critically

(1) for labor and environmental partners, standards
(2) are also key drivers of technological innovation
(3) in the auto industry signaling certainty about
(4) the future and providing the industry with the
(5) time to develop and deploy clean vehicle
(6) technologies. If deployed in tandem with strong
(7) investments and labor protections, BGA research
(8) finds that standards can be a boon to the auto
(9) manufacturing workers and communities that will
(10) build the vehicles of the future.

(11) Failing to consider the
(12) standards impacts on workers however risks
(13) causing job loss as employers shift their supply
(14) to investment strategies to meet more stringent
(15) requirement.

(16) For this reason, we urge the EPA
(17) to keep the following two principles in mind as
(18) it finalizes the standard, first climate policy
(19) must not fail the workers who are going to make
(20) ambitious reduction targets possible. EPA
(21) incorporates a range of considerations and data
(22) sources into its proposals, from the availability
(23) of clean vehicle technologies to perspectives
(24) from the environmental and EJ communities about
(25) what is necessary to achieve climate and equity

(1) goals, to feedback from truck manufactures about
(2) what is feasible and cost effective for them to
(3) implement.

(4) There is no reason why it should
(5) not also consider the stakes for workers
(6) including auto manufacturing workers, workers
(7) making components for internal combustion engines
(8) and electric vehicles and workers in the oil and
(9) gas sector and incorporate those stakes into its
(10) proposals.

(11) Second auto makers need to be
(12) good honest effort brokers in the process and to
(13) comply with the standards. This means not
(14) inflating their estimates of the cost of
(15) compliance with ambitious standards, it means
(16) acknowledging that the Inflation Reduction Act
(17) and Bipartisan Infrastructure Law have unlocked
(18) unprecedented resources they can leverage to
(19) bring their fleets into compliance but perhaps
(20) most importantly it means not using the standards
(21) as an excuse to disinvest in the workers that
(22) build their business.

(23) EPA should seek ways to ensure
(24) that in their efforts to comply standards auto
(25) makers do not push the cost off to workers by

(1) offshoring their supply chains in search of lower
(2) labor costs and less stringent environmental
(3) standards.

(4) Jobs at auto manufacturing
(5) supply chains should come with community
(6) supporting wages and benefits and auto makers
(7) must not be allowed to leverage the transitional
(8) period to shortchange their workers and fatten
(9) their bottom line.

(10) Yes, EPA is a regulatory agency
(11) at its core but the work has economy shaping
(12) potential with major stakes for workers. EPA
(13) should sign a Memorandum of Understanding with
(14) the Department of Labor as DOE and DOT have
(15) already done. This creates a formal venue in
(16) which EPA can better incorporate workforce
(17) concerns into all its regulatory work including
(18) the critical rule making.

(19) Thank you for the opportunity to
(20) speak today.

(21) MS. PIGGOTT: Thank you for your
(22) comments

(23) Alright, our final speaker in
(24) panel 32 is Jack Shu.

(25) JACK SHU: Good morning, good

(1) morning from California. My name is Jack Shu, I
(2) am a city councilman in the city of La Mesa which
(3) is just east of San Diego and also I am an
(4) advisor to the National Parks and Conservation
(5) Association, I have some other hats, board member
(6) of the local air pollution control district and I
(7) also serve on the regional transportation agency.

(8) For California, this proposed
(9) rule would help support our current effort to
(10) push the speed in which we can move towards
(11) cleaner air. In southern California,
(12) transportation amounts to 40 to 50 percent of
(13) greenhouse gas emissions much higher than the
(14) national average. Vehicle emissions are the
(15) hardest yet the most critical pollutant for us to
(16) eliminate.

(17) There are three points I'd like
(18) to make this morning, one is that we need to
(19) reduce the haze that is caused by air pollution.
(20) And for your information, the data shows that
(21) haze is caused by vehicle pollution. You know in
(22) this country we have preserved some of the best
(23) view sheds that our nation provides, I am
(24) speaking of places like Yosemite, Sequoia
(25) National Park, Grand Canyon these are wonderful

(1) places we need to preserve, yet they are not
(2) visible much of the time and that is due to
(3) pollution.

(4) Per EPA's own data, PM 2.5 and
(5) NOx are the cause of this and that vehicle
(6) emission is primary reason why these places are
(7) not visible. These places in our nation need to
(8) be preserved.

(9) Second point I want to make is
(10) that your findings support the findings of the
(11) state of California and our screening map shows
(12) that some communities are much more effected by
(13) pollution than others, these are communities that
(14) are poor, that have people of color and that need
(15) to be relieved of this pollution.

(16) We need to move towards cleaned
(17) air faster, we need to move towards eliminating
(18) internal combustion vehicles faster. I implore
(19) you to move on this quickly.

(20) You know, we know the
(21) information, the facts are very clear, to not
(22) act, to not move as fast as we can is a crime,
(23) it's a crime because of environmental justice
(24) issues, crime against the environment and our
(25) futures for all of our children. It effects

(1) elderly, it effects poor people and people of
(2) color much more than the others.

(3) So please move quickly, 2032 is
(4) not soon enough, 2030 is much better and if we
(5) could do this because it's economically feasible,
(6) that's all the better.

(7) MS. PIGGOTT: That's three
(8) minutes, thank you for your comments.

(9) Alright, that concludes panel 32
(10) and panel 32 is the last panel that was slotted
(11) to provide testimony before we take our scheduled
(12) lunch break which was scheduled to begin at
(13) twelve p.m. eastern.

(14) We do have a little bit of time
(15) remaining, so if anyone is on the hearing right
(16) now that is slotted for a later panel that would
(17) like to provide their testimony now or if you did
(18) not register to speak and have not already
(19) provided testimony as part of this hearing to
(20) include today, yesterday or Tuesday, please use
(21) the raise your hand feature button at the bottom
(22) of your Zoom platform, you can also message the
(23) meeting host. If you are a call in only user,
(24) you can press star nine to raise your hand and we
(25) will hear your testimony.

(1) Dean Taylor, I see that you are
(2) on. I am going to promote you to panelist so you
(3) can provide your testimony. Dean Taylor, you are
(4) now a panelist, you should be able to unmute and
(5) turn your camera on if you choose.

(6) DEAN TAYLOR: Hi, thank you very
(7) much. My name is Dean Taylor. I am calling as a
(8) private individual and as a representative of the
(9) Strong Plug in Hybrid Coalition. We support the
(10) EPA proposal and are particularly happy that it's
(11) not mandating any particular technology in order
(12) to achieve the greenhouse gas and NOx, NMOG and
(13) PM emissions.

(14) We are also supporting the
(15) averaging banking and trading provisions and the
(16) tougher NOx, PM and NMOG provisions on vehicles
(17) including plug in hybrids. We think it's
(18) important that this -- have this flexibility in
(19) the rule that some auto makers will want to make
(20) plug in hybrids to meet the need of several types
(21) of provisions -- of consumers. Plug in hybrids
(22) with over 50 miles, all electric range, are
(23) especially beneficial as they have essentially
(24) the equivalent greenhouse gas emissions as long
(25) range battery electric vehicles when the battery

(1) manufacturing emissions are included.

(2) We will provide written comments
(3) with a lot of additional details to support the
(4) things I am saying today but at a high level, I'd
(5) like to note that plug in hybrids are needed to
(6) support several consumers, long term drivers,
(7) change job often or work two jobs. Drivers in
(8) rural areas and others who similarly drive long
(9) distances or areas with very little public
(10) charging, drivers who are in cold weather region,
(11) drivers that tow campers, boats and trailers,
(12) fleets who use loan vehicles for catastrophe such
(13) as wild fires, earthquakes, wind storms,
(14) hurricanes, tsunamis, power outages, riots,
(15) tornados, floods are especially needed to have a
(16) dual fuel vehicle as a plug in hybrid, or drivers
(17) that are skeptical or opposed to ZEVs.

(18) Plug in hybrids can help with
(19) scaling and supply chain issues. For example
(20) plug in hybrids cars and trucks do not need to
(21) use away from home charging and this can reduce
(22) the speed of the scale of the build up of
(23) charging infrastructure. They also use
(24) substantially less battery raw materials than
(25) long range battery EVs and this can reduce the

(1) price and scale pressures on the battery
(2) industry.

(3) A strong plug in hybrid for
(4) example is roughly using five times less critical
(5) minerals than a long range battery EV. So it
(6) becomes much more feasible than EPA's proposal to
(7) have the mix of vehicles, as will be able to
(8) reach our goals faster with this flexible
(9) approach.

(10) We -- I think I'll end my
(11) comments there. Thank you so much for your
(12) proposal, we will provide written comments on
(13) July 5.

(14) MS. PIGGOTT: Alright, would
(15) anyone else who did not register to speak and has
(16) not already provided testimony like to provide a
(17) testimony before we break for lunch?

(18) Alternatively if you are on a
(19) later panel and already participating in the Zoom
(20) and would like to speak early, you can use the
(21) raise your hand feature function at the bottom of
(22) your Zoom platform or message the meeting host.
(23) For call in users, you can press star nine to
(24) raise your hand. I'll pause to see if anyone
(25) else would like to provide their testimony now.

(1) Thank you.

(2) Alright, not seeing any
(3) additional chat messages or hands, we are now at
(4) the end of our afternoon session.

(5) EPA, are you ready to recess for
(6) the scheduled lunch break?

(7) MR. OLECHIW: Yes, Jennifer, EPA
(8) is ready to go on recess. We will resume the
(9) meeting at one p.m. eastern time.

(10) MS. PIGGOTT: Thank you, we are
(11) now adjourning for our lunch break. The room
(12) will remain open and feel free to maintain your
(13) connections or join early and we will start again
(14) promptly at one p.m. eastern. Thank you.

(15) (Whereupon, a recess is taken.)

(16) MS. PIGGOTT: Welcome back to
(17) the virtual public hearing for the proposed rule
(18) titled multi-pollutant emission standards for
(19) model years 2027 and later light-duty and
(20) medium-duty vehicles.

(21) We are now ready to resume the
(22) hearing, EPA, are you ready to continue?

(23) MR. OLECHIW: Yes, EPA is ready
(24) to continue.

(25) MS. PIGGOTT: My name is

(1) Jennifer Piggott from ICF, the third-party
(2) contractor facilitator for this evening's
(3) hearing. We are now ready to continue the
(4) hearing.

(5) We are transcribing today's
(6) hearing and you can turn on live captioning if
(7) you would like to read the verbal dialogue. To
(8) turn on live captioning, click on the CC icon on
(9) the bottom of your screen, then click show
(10) subtitles show subtitles to view the closed
(11) captioning and hide subtitles to turn them off.

(12) We will now continue our public
(13) testimony. The speaker order is currently
(14) displayed on the screen.

(15) Again we ask that each person
(16) limit their verbal testimony to three minutes and
(17) speak slowly and clearly for the benefit of the
(18) court reporter and the interpreter. Because of
(19) the large number of registered speakers we will
(20) be strictly enforcing the three minute time
(21) limit. If you exceed your time, we will need to
(22) turn off your microphone.

(23) If you have additional comments
(24) that you are not able to provide today, you can
(25) also submit them through the docket at

(1) www.regulations.gov using Docket ID
(2) EPA-HQ-OAR-2022-0829 and we will paste this
(3) docket number into the chat.

(4) I will be calling on each
(5) speaker one at a time in the order displayed on
(6) the screen. Please speak clearly so our court
(7) reporter can record these proceedings accurately.

(8) Finally, I apologize in advance
(9) for mispronouncing anyone's name.

(10) We are starting with panel 33.
(11) Our first speaker is Steve Sondheim who I am not
(12) seeing on the Zoom platform. Steve Sondheim.

(13) Alright our next speaker is Mark
(14) Rose. I see you on the platform. Mark Rose?

(15) MARK ROSE: Can you hear me?

(16) MS. PIGGOTT: Yes, go ahead, you
(17) have three minutes.

(18) MARK ROSE: Thank you for the
(19) opportunity to comment. My name is Mark Rose, I
(20) am the Sierra Nevada program manager for National
(21) Parks Conservation Association.

(22) On behalf of NPCA and over 1.6
(23) million members and supporters, I want to thank
(24) the administration for acting quickly on the
(25) proposed rule to reduce air and climate pollution

(1) from light and medium-duty vehicles.

(2) I am currently a resident of
(3) Sacramento, California but until recently I lived
(4) and worked in Fresno, California which lies
(5) within one of the most polluted air basins in the
(6) nation, the San Joaquin Valley. Having worked on
(7) air pollution issues in the valley and nearby
(8) national parks, I am intimately familiar with the
(9) significant impact cars and other vehicles have
(10) on air quality and some of America's most
(11) polluted cities. This is especially true for
(12) communities of color who far too bare
(13) disproportionate health impacts from dirty
(14) tailpipe emissions.

(15) Air pollution from cars shortens
(16) the lives of too many Americans and contributes
(17) to the region's like the valley and the south
(18) coast air district remaining in extreme or
(19) seriously non attainments with max pollutants
(20) like ozone and fine particulates.

(21) Cars are also one of the biggest
(22) sources visibly impairing pollution or haze under
(23) the clean acts regional haze program. For
(24) instance in two of the national parks I work on,
(25) on road mobile sources account for the largest

(1) portion of the regional haze that reduces an
(2) average of 90 miles of visibility in the parks
(3) annually. The same pollution also harms the
(4) well-being of national parks visitors and
(5) employees, effects wildlife, plant life and
(6) degrades important habitats.

(7) Reducing any pollution from cars
(8) and other light and medium-duty vehicles will
(9) have significant co-benefits for the state's
(10) regional haze program and protect our treasured
(11) national parks.

(12) I am also aware through our work
(13) of the oversize role cars play in driving the
(14) global climate crisis. Living in California I
(15) have been personally effected by climate change
(16) driven drought, wild fires, flooding and other
(17) harms that are only expected to worsen. The
(18) transportation sector is now the largest
(19) contributor of greenhouse gases in the U.S. with
(20) light and medium-duty vehicles making up the bulk
(21) of those emissions.

(22) It is critical the EPA get the
(23) rule right to meet the air and climate goals.
(24) This is why NCPA supports EPA quickly finalizing
(25) alternative one and urge you to pick up the pace

(1) starting in 2030 to ensure we can require all
(2) light and medium-duty vehicles sold to be
(3) zero-emission by no later than 2035. Numerous
(4) states have already committed to similar
(5) standards and when coupled with significant
(6) public and private investment through the
(7) Inflation Reduction Act and other funding sources
(8) it is clear that a rapid transition to
(9) zero-emission vehicles is both feasible and
(10) inevitable and this rule reflects that reality.
(11) Thank you.

(12) MS. PIGGOTT: Thank you for your
(13) comments.

(14) The next speaker is Ruth Hund
(15) who I am not seeing on the Zoom screen. If you
(16) joined under a different name, please use the
(17) raise your hand feature located at the bottom of
(18) your Zoom platform. If you called in by phone,
(19) you can press star nine to raise your hand.

(20) Ruth Hund with the Sierra Club.
(21) Alright, our next speaker is
(22) Shelly Sallee.

(23) SHELLY SALLEE: Hello. Can you
(24) hear me?

(25) MS. PIGGOTT: Yes, go ahead.

(1) You have three minutes.

(2) SHELLY SALLEE: Okay. Hello, I
(3) am Shelly Sallee. I am a teacher in Austin,
(4) Texas and I represent the Texas Sierra Club.

(5) Whether I am teaching high
(6) school or community college, my students think
(7) the government needs to do more for the
(8) environment have, and I know this from having
(9) them fill out beyond the peer research poll,
(10) Beyond Red versus Blue and their personal
(11) politics do not yet cloud their understanding
(12) that the planet is in trouble.

(13) And my students are problem
(14) solvers, but when it comes to global warming they
(15) are very jaded about politics, so I have tried to
(16) be more active and I am here to tell you that I
(17) want them to see their politicians solving
(18) problems.

(19) I want them to know government
(20) can make changes and confront big problems. Acid
(21) rain, the government transformed my mother's own
(22) family life with rural electrification and the
(23) marshall plan rebuilt Europe.

(24) Global warming is a huge problem
(25) with -- that will be complicated to solve but

(1) permanently cutting tailpipe emissions in
(2) light-duty and medium duty vehicles is an easy
(3) step to take. It's a win win, it immediately
(4) makes the air cleaner and others will testify
(5) about connections to childhood asthma, but
(6) everyone benefits.

(7) The World Health Organization
(8) reports that almost all of the global population
(9) breathes air that exceeds their own guide
(10) guidelines with low and middle income countries
(11) suffering from the highest exposures.

(12) The U.S. has a real chance to
(13) lead. When standards for vehicles in this
(14) country are improved, it can push global markets.
(15) So cleaning up tailpipe pollution is one of the
(16) most important things we can do to improve air
(17) quality and we need the strongest possible long
(18) term solutions, long term standards beyond the
(19) model year 2026 that will reduce car and light
(20) truck greenhouse gas emissions 75 percent by 2030
(21) and help us meet our Paris Agreement to try to
(22) keep global warming below 1.5.

(23) My students understand why a
(24) degree matters, they understand that even when
(25) your body temperature rises one degree they start

(1) to feel sick and they know that is what is
(2) happening to the planet and we are a currently on
(3) a trajectory to go beyond three degrees so the
(4) planet will have a fever.

(5) History is not always hopeful,
(6) one historian noted about the eve of the first
(7) world war that empire was a living anachronism,
(8) and they failed to recognize the changes of
(9) modernity and played imperial power games that
(10) resulted in the blood bath of World War I. Our
(11) polluting way of life is now a living anachronism
(12) and this standard is a small step towards cleaner
(13) air and a brighter future. Thank you.

(14) MS. PIGGOTT: Thank you for your
(15) comments.

(16) Alright, our next speaker in
(17) panel 33 is Elbert Hill. Okay. I see a Burt
(18) Hill --

(19) ELBERT HILL: Hello. Hello.
(20) Can you hear me?

(21) MS. PIGGOTT: Yes, go ahead you
(22) have three minutes.

(23) ELBERT HILL: Okay. My name is
(24) Burt Hill, Elbert Hill. I live in San Francisco.
(25) And I got my first electric car in 2002 under the

(1) standards for California at that time. I have
(2) not had an emission creating vehicle in the time
(3) to the present and I am frustrated by the slow
(4) way we have made the conversion over to electric
(5) and more importantly to eliminate our cars in our
(6) second most dense city in the United States.
(7) There is no need for people to own cars.

(8) We can use shared system, mass
(9) mobility is a service and we have excellent
(10) public transportation system. I travel 80 to 90
(11) percent of my trips that I need to make on my
(12) bicycle, I am 75 years old, so age should not be
(13) much of a factor, and for that reason I think we
(14) should be able to -- we should really increase
(15) the restrictions on motor vehicles that use
(16) carbon fuels.

(17) One of the most serious things I
(18) think we have that's hardly ever talked about is
(19) in a density like San Francisco, the vast
(20) majority of trips are well under five hours -- or
(21) five miles and in the time to warm up an engine
(22) with the catalytic converters et cetera, they are
(23) polluting with everything before all the factors
(24) get into working on the engine itself.

(25) And so we are far more

(1) pollution, far more density and far more bad air
(2) in a density and it shouldn't be that way.
(3) Density should be where everyone wants to live,
(4) so I think our actions in the EPA need to reflect
(5) that not just have a single standard but actually
(6) look at how much emission is coming out of an
(7) average car based on the way they live and the
(8) way they are working and the size of the vehicle
(9) and that's another issue. We have way too heavy,
(10) way too large vehicles, they are more big than
(11) they need to be.

(12) Let's see and with that, I hope
(13) -- 80 percent of Norway's sales these days are to
(14) electric vehicles. Our standards and what we are
(15) doing is way too easy to not make the conversion.
(16) Thank you very much.

(17) MS. PIGGOTT: Thank you for your
(18) comments.

(19) Alright, our next speaker is
(20) Rachel Patterson.

(21) RACHEL PATTERSON: Good
(22) afternoon, my name is Rachel Paterson, and I am
(23) representing Evergreen Action today. We are a
(24) non profit organization focusing on achieving all
(25) government mobilization to defeat the climate

(1) crisis and enact a clean and just global economy
(2) and we applaud EPA for putting forward a proposal
(3) that will get more light and medium-duty vehicles
(4) electric vehicles on the roads that reduce
(5) emissions and public health outcomes especially
(6) for low income and disadvantage communities that
(7) experience disproportionate health impacts from
(8) transportation and pollution.

(9) We are glad to see EPA using the
(10) full regulatory authority through the Clean Air
(11) Act using long-standing and statutory authority
(12) to set emission targets for medium and light-duty
(13) vehicles.

(14) The standard EPA proposed
(15) reflects the level of ambition needed to protect
(16) public health and respond to the climate crisis.
(17) While technology agnostic, we are hopeful this
(18) proposal will encourage auto makers to produce
(19) greater numbers of EVs leading to the 67 percent
(20) new car sales target by 2032.

(21) We believe that these targets
(22) are appropriate based on commitments from major
(23) auto manufacturers as well as large commercial
(24) fleet owners and we believe that strong standards
(25) will hold auto makers accountable to their

(1) commitments to transition to EV fleets.

(2) We are also pleased to see that
(3) the proposal extends beyond 2030 projecting into
(4) 2032 and we appreciate EPA is considering
(5) regulations through 2035. We believe it's
(6) important to project future regulations, because
(7) we believe it gives manufacturers, investors and
(8) consumers greater certainty about the vehicle
(9) market. Projecting future regulations beyond
(10) their traditional four year time period is also
(11) critical because we need to be on a path to
(12) zero-emission vehicles within the next decade.

(13) Thank you so much for the
(14) opportunity to provide comment. We will provide
(15) more substantive comments through the regulatory
(16) process. Thank you.

(17) MS. PIGGOTT: Thank you for your
(18) comments.

(19) Okay, so I think the next three
(20) speakers we are missing in panel 33, Steven
(21) Sondheim, Ruth Hund and then Philip Hernick. If
(22) you are on the Zoom platform maybe under a
(23) different name, use the raise your hand feature
(24) at the bottom of your Zoom platform or send the
(25) host a chat message or if you called in by phone,

(1) you can press star nine to raise your hand.

(2) With that, we will move onto
(3) panel 34 where our first speaker is Laurel
(4) Moorhead.

(5) LAUREL MOORHEAD: Thank you EPA
(6) staff for your hard work on this regulation and
(7) for holding this public hearing. My name is
(8) Laurel Moorhead and I represent Transfer Flow.

(9) Transfer Flow has been in
(10) business in beautiful northern California for 40
(11) years manufacturing high quality liquid fuel
(12) systems and creating nearly 100 good paying local
(13) jobs. As EPA staff is well aware listening to
(14) almost three days of EPA public hearing testimony
(15) is exhausting. One thing I have noticed over the
(16) few days is that I haven't heard anybody argue
(17) the merits of climate change. Everybody
(18) participating agrees that climate change is a
(19) real issue that needs to be addressed as quickly
(20) and efficiently as possible.

(21) The only real argument I have
(22) observed is whether to mandate only a single
(23) vehicle technology or allow American innovation
(24) the freedom to solve this problem with as many
(25) different technologies as is practical. There

(1) seems to be a single vehicle technology camp that
(2) only wants to compare the benefits of one
(3) strategy with the disbenefits of any other
(4) strategy and wants to dictate that everybody only
(5) uses a single vehicle technology whether that
(6) technology meets the user's needs or not.

(7) Then there is the freedom camp
(8) that believes any and all zero technology should
(9) be ramped up as quickly as possible to combat
(10) climate change.

(11) The problem with petroleum based
(12) fossil fuel is they take carbon that's been
(13) locked in the ground for hundreds of thousands of
(14) years and release it into the atmosphere
(15) essentially disrupting the natural carbon
(16) balance. When we use renewable fuels, we use
(17) carbon that's already part of the carbon cycle
(18) and do not emit additional carbon into the
(19) atmosphere.

(20) Carbon intensity is measured in
(21) grams of CO2 per megajoule of energy. Last week
(22) California's average grid electricity was 81.5
(23) grams of CO2 emissions per megajoule of energy.
(24) The carbon intensity for liquid hydrogen created
(25) from swine manure was negative 350 grams of CO2

(1) of emissions per megajoule of energy. That means
(2) that creating hydrogen fuel from swine manure
(3) waste left over from factory farming operations
(4) creates 350 fewer grams of CO2 emissions per
(5) megajoule of energy than that manure would have
(6) been made had it been left in the sewer pond to
(7) rot.

(8) The farmer wants to power their
(9) own farm equipment using their own carbon
(10) negative renewable fuel they created on their own
(11) farm by cleaning up their operation waste, that
(12) should not only be allowed but it should be
(13) encouraged. That freedom is an essential
(14) American value. It is the not a single
(15) technology that needs to be mandated but rather a
(16) single vehicle fuel that needs to be prohibited.

(17) Petroleum based fossil fuel
(18) should be phased out as quickly as feasible. EV
(19) mandates are being used as a backstop to continue
(20) using petroleum based fossil fuels while the grid
(21) is being built up which probably won't go as
(22) smoothly as planned. We need drop in renewable
(23) gasoline, drop in renewable diesel and green
(24) hydrogen as well as electric vehicles and we need
(25) all these technologies as quickly as possible.

(1) Thank you for your time.

(2) MS. PIGGOTT: Thank you for your
(3) comments.

(4) Our next speaker in panel 34 is
(5) Reverend Michael McClain.

(6) REVEREND MICHAEL MC CLAIN:
(7) Hello everyone. Thank you for the opportunity to
(8) speak before you today. I want to commend you
(9) and the agency for the outstanding life saving
(10) work that you do, have done and I pray that you
(11) shall always do.

(12) As stated, I am the Reverend
(13) Michael McClain, I am the national outreach
(14) coordinator for the National Religious
(15) Partnership For the Environment based in
(16) Washington. I am the representative for the
(17) National Baptist Convention U.S.A., Inc. and I am
(18) also the past National Director for African
(19) American Faith Engagement for our illustrious
(20) President Joseph R. Biden.

(21) I live in Charlotte, North
(22) Carolina. As a person of faith and of color. I
(23) view the EPA's work through the limbs of the
(24) Christian church which is one of stewardship and
(25) protector of the planet and mankind. Cars and

(1) light-duty trucks account for more than 20
(2) percent of all U.S. greenhouse gas emissions and
(3) 45 percent of all oil consumption making the
(4) transportation sector the number one source of
(5) climate and air pollution in our nation.

(6) For the United States to meet
(7) our Paris Climate Agreement goals, we need the
(8) strongest possible long term standards beyond
(9) model year 2026. That will reduce car and light
(10) truck emissions by 75 percent by 2030 putting the
(11) country on the path to 100 percent zero
(12) emissions, new vehicle sales targeted by 2035.

(13) We can't fight climate change
(14) without cleaner cars. By acting on clean cars,
(15) the Biden administration has acknowledged the
(16) importance of tackling climate pollution from
(17) transportation and is following through the
(18) president's promise to address climate change and
(19) environmental justice.

(20) We need the boldest and
(21) strongest possible clean car standards to truly
(22) make good on those commitments. Through our
(23) faith, we hold fast to the common moral values
(24) that prioritize in protecting vulnerable
(25) communities, protecting our children's health,

(1) fearing for God's creation and fulfilling our
(2) obligations to further generations.

(3) According to the American Lung
(4) Association State of Air Report four in ten
(5) Americans live in areas with unhealthy levels of
(6) air pollution often caused by tailpipe emissions
(7) from passenger cars and trucks. Strong fuel
(8) economy standards would also follow through on
(9) the EPA's stated commitment to environmental
(10) justice and help address key transportation
(11) related impacts.

(12) Low wealth, black, indigenous
(13) people of color communities experience
(14) disproportionate harm from dirty vehicle
(15) pollutions leading to the increased rates of
(16) asthma and other respiratory illnesses.

(17) MS. PIGGOTT: That's three
(18) minutes. Thank you for your comments.

(19) Our next speaker is Reverend
(20) Richard Kilmer.

(21) REVEREND RICHARD KILLMER: My
(22) name is Reverend Richard Killmer, retired
(23) Presbyterian Minister living in Yarmouth, Maine
(24) and Grand Rapids, Michigan.

(25) The intergovernmental panel on

(1) climate change gives regular reports on the
(2) crisis and recently it's now saying that the
(3) world needs to cut emissions by half by 2030 and
(4) reach net zero-emissions by 2050. That means
(5) that humanity's greenhouse gas emissions will
(6) have to decrease dramatically and quickly and
(7) that we will need to take out some of the
(8) greenhouse gases that are already in the gas
(9) blanket that surround the earth.

(10) After the release of the IPCC
(11) report, the Biden administration announced on
(12) April 12 a plan to create some of the most
(13) stringent auto pollution limits in the world
(14) designed to ensure that all electric cars make up
(15) as much as 67 percent of new passenger vehicles
(16) sold in the country by 2032 so instead of
(17) vehicles being powered by gasoline, they will be
(18) powered by electricity. That would represent a
(19) quantum leap for the U.S. where just 5.8 percent
(20) of vehicles sold last year were all electric and
(21) would exceed President Biden's earlier ambitions
(22) to have all electric cars account for half of
(23) those sold in the country by 2030.

(24) It would be the federal
(25) government's most aggressive climate regulation

(1) and would propel the United States to the front
(2) of the global effort to slash the greenhouse
(3) gases generated by cars, a major driver of
(4) climate change.

(5) This move would be a major step
(6) to decrease greenhouse gas emissions and hence,
(7) reduce the dangers of sea level rise, droughts,
(8) floods and more powerful hurricanes. Rapidly
(9) speeding up the adoption of EVs in the U.S. would
(10) require these changes, construction of millions
(11) of new EV charging stations and overhaul of
(12) electric grids to accommodate the power needs of
(13) those chargers and securing materials needed for
(14) EV batteries.

(15) The IPCC has given humanity a
(16) stern warning, we need to take bold action to
(17) keep the earth's temperature at no more than an
(18) increase of 1.5 degrees Celsius. Building on the
(19) success of the Inflation Reduction Act, the
(20) administration has now proposes to take steps
(21) that increase the number of EVs on the road, a
(22) major proposal that will reduce greenhouse gas
(23) emissions. Thank you for this opportunity.

(24) MS. PIGGOTT: Thank you for your
(25) comments.

(1) Our next speaker is Jessica
(2) Enzmann.

(3) JESSICA ENZMANN:My name is
(4) Jessica Enzmann. I am a senior organizer with
(5) the Sierra Club. I am calling in from Long
(6) Island, New York sitting on the ground in my
(7) living room right now. It is my honor to
(8) represent our four million supporters and members
(9) including many in New York.

(10) I am going to tell a personal
(11) story today, my mom grew up in the Bronx between
(12) the Hutchinson River Parkway and the Cross Bronx
(13) Expressway. She often told me she was a sick kid
(14) and needed to stay inside a lot. I realized as I
(15) got older that this was due to my mother's
(16) asthma. Everyday I watched her as she used a
(17) medicated inhaler and everywhere she went she had
(18) to bring her emergency inhaler.

(19) When there are poor air quality
(20) days, my mom has to not leave the house, she
(21) can't walk around the block or go in her yard,
(22) it's dangerous for her health. We have a moment
(23) now to save lives and drastically improve public
(24) health with the rule. We must set the strongest
(25) science based standards to ensure cleaner air for

(1) families, advance environmental justice and
(2) protect our health. The standards must reduce
(3) emissions by 75 percent by 2030, and put us on a
(4) path so that all new vehicle sales are
(5) zero-emission by 2035.

(6) We often hear points about what
(7) is possible and not, let me remind you when my
(8) mom was a kid her television was a piece of
(9) furniture in her living room and now her
(10) television fits in her pocket and it's also her
(11) cell phone, so when I think about people in the
(12) fossil fuel industry that made money off the
(13) decisions that made my mother sick and the
(14) inaction of the government that exacerbated by
(15) mom's poor health and likely took years from her
(16) life, when it absolutely deteriorated the quality
(17) of her life, it motivates me to pursue this
(18) career path and show up today.

(19) I hope it motivates decision
(20) makers to prioritize the health of Americans. I
(21) am here today because I wish someone would have
(22) made the change for my mom when she was just a
(23) kid. I am here for the future mothers, children,
(24) elderly, all of us, we all stand to benefit from
(25) strong rules. Thank you for your time.

(1) MS. PIGGOTT: Thank you for your
(2) comments.

(3) Our next speaker is Jim
(4) McCarthy.

(5) JIM MCCARTHY: Hi, thank you for
(6) giving me the opportunity to address you. I am
(7) with the Electric Vehicle Association,
(8) specifically the Electric Vehicle Association of
(9) Southern California.

(10) The environment is what sustains
(11) us and we appreciate the efforts of the
(12) Environmental Protection Agency in this area of
(13) emissions, emissions need to be reduced an as
(14) much as is possible not only for the health
(15) reasons but the economic reasons as well.

(16) Liquid fuels where necessary
(17) should be produced from agricultural and other
(18) wastes and everyone can currently get a much more
(19) efficient and effective electric car or truck
(20) that supports their needs. Electric vehicles
(21) will give you more time, money and quickness not
(22) to mention clean air and quiet.

(23) One of the major issues we need
(24) to stay onto is to not be distracted. Emissions
(25) are produced by internal combustion vehicles and

(1) the fuel from the oil companies that -- in
(2) combination. They work together in this way to
(3) create the problem we now face.

(4) A recent 60 Minutes show
(5) featured a CEO of an oil company that said that
(6) her carbon recapture program was the only answer
(7) to our current situation and said they needed
(8) massive government subsidies to do it. They want
(9) to continue to charge everyone for the
(10) inefficient and polluting and overpriced fuels
(11) and then have everyone pay them again to clean up
(12) the mess they made. The best way to clean up an
(13) unnecessary mess is to not create it and we do
(14) not need to create it.

(15) The current administration says
(16) that the oil companies that have made over \$200
(17) billion and that is with -- in addition to \$30
(18) billion in government incentives.

(19) We can produce electricity for
(20) vehicles and by the way most hydrogen is produced
(21) with electricity, so we can skip that step and
(22) move directly to electric vehicles. The Rivian
(23) pickup truck is rated at over 300 miles of range.
(24) There are many charging options we need to
(25) improve on, people can charge at a regular 110

(1) outlet.

(2) Roof top solar and wind can
(3) produce electricity where it is needed and those
(4) are the simple solutions we need to work with.
(5) Most drivers drive less than 40 miles a day and
(6) that is within the range of electric vehicles so
(7) we applaud the efforts of the EPA to correct the
(8) health and financial inefficiency of our current
(9) transportation system. Thank you.

(10) MS. PIGGOTT: Thank you for your
(11) comments.

(12) Our next speaker is Paul Miller.

(13) PAUL MILLER: Hello, my name is
(14) Paul Miller. I am the Executive Director of the
(15) Northeast States for Coordinated Air Use
(16) Management or NESCAUM. NESCAUM is the regional
(17) association of air quality agencies in the six
(18) New England states plus New Jersey and New York.
(19) Our members have the primary responsibility in
(20) their states for implementing programs that
(21) achieve the public health and environmental
(22) protection goals in the Clean Air Act and in
(23) state law.

(24) In a coordinated effort to
(25) reduce vehicle pollution, seven of the eight

(1) member states have adopted the California clean
(2) car or ACC standards, these standards now adopted
(3) by 18 states created economies of scale for
(4) zero-technologies and pave the way for the
(5) federal emissions standards that EPA is now
(6) proposing for light-duty and medium-duty
(7) vehicles.

(8) In addition to proposed
(9) durability requirements for battery electric and
(10) plug in hybrid electric vehicles and provisions
(11) for batteries will ensure that the benefits are
(12) long-lasting and support the development of a
(13) robust secondary ZEV market.

(14) We are pleased that EPA's
(15) proposal exceeds the administration goal that 50
(16) percent of light-duty sales be ZEVs by 2030.
(17) This is entirely appropriate given the health and
(18) climate needs, and because the technologies to
(19) meet the proposed standards are widely available
(20) and in use today.

(21) The feasibility of the proposal
(22) is further under scored by a number of factors
(23) including rising electric vehicle sales trends,
(24) anticipated impact of the Inflation Reduction
(25) Act, and California new ACC2 regulations which

(1) ramp up to require 100 percent of new light-duty
(2) vehicle sales to be ZEVs by 2035. Several states
(3) already adopted ACC2 and more are expected to
(4) follow.

(5) We are now working with about 20
(6) states to support a rapid transition to ZEVs, and
(7) these states have successfully pursued a wide
(8) range of market incentives, deployed chargers in
(9) communities and at work places, utility
(10) transportation electrification programs, and
(11) consumer awareness campaigns.

(12) State efforts such as these have
(13) help to foster the growing market for ZEVs but
(14) the promulgation of more federal standards is
(15) critical to ensure the nation's fleet moves
(16) towards zero-emissions and the U.S. auto industry
(17) remains competitive in the global market.

(18) EPA's proposal is an important
(19) step in this direction. Thank you.

(20) MS. PIGGOTT: Thank you for your
(21) comments.

(22) Our next speaker is Gloria
(23) Barrera, I am not seeing Gloria on the Zoom
(24) platform. If you joined under a different name
(25) or a call-in user, if you joined under a

(1) different name, you can use the raise your hand
(2) feature function at the bottom of the Zoom
(3) platform or send a chat message to the meeting
(4) host.

(5) With that, we will move onto
(6) panel 35 where our first speaker is Brian Kalina.

(7) BRIAN KALINA: Okay. Yes, my
(8) name is Brian Kalina, and I am a mechanical
(9) engineer from Michigan. Thank you for taking --
(10) thank you for this opportunity to speak.

(11) I am aligned with the EPA's end
(12) goals and because of this alignment I do
(13) encourage EPA to not discount renewable fuel and
(14) combustion engine technology as an important
(15) neighbor of the greenhouse portion of these
(16) goals.

(17) In my own personal and
(18) professional studies over the last 15 years, I
(19) continue to come across evidence that pursuing a
(20) mix of clean solutions and not just battery
(21) electric will lead to greatest environmental
(22) economic and geo political sustainability.

(23) I am concerned by not
(24) considering battery electric vehicle upstream
(25) emissions, emissions which are typically greater

(1) than that of internal combustion engine vehicles,
(2) the proposal as it presently stands would treat
(3) battery electric as a less greenhouse gas
(4) intensive technology than it really is.

(5) In effect the proposal in its
(6) current stance would force a greater fraction of
(7) battery electric vehicle sales than I do believe
(8) is optimal for a minimized greenhouse gas
(9) emissions and moreover is optimal for a country's
(10) economic and geo political interests.

(11) There are four issues associated
(12) with increased battery electric vehicle
(13) production and use that I would like to
(14) highlight. Number one, increase in adverse
(15) environmental impact associated with battery raw
(16) material extraction, battery manufacturing and
(17) electricity generation for battery charging.

(18) Number two, political conflict
(19) which may arise from over reliance on battery raw
(20) materials which often times must be sourced from
(21) certain regions of the world.

(22) Number three and this hits close
(23) to home, permanent reduction in auto industry job
(24) counts seeing how battery electric does not use
(25) as many parts as an internal combustion engine.

(1) These parts frankly power thousands of good
(2) paying jobs.

(3) And number four, the decimation
(4) of U.S. biofuels industry, an industry that would
(5) otherwise be poised to greatly assist in bringing
(6) to fruition EPA's greenhouse gas emissions goals.

(7) To help protect against the
(8) issues, I strongly encourage EPA to adopt
(9) greenhouse gas quantification methods which are
(10) guided by lifecycle assess. To only focus on
(11) tailpipe emissions is to discount very important
(12) big picture factors. If we are to achieve
(13) balance which is essential for long term
(14) sustainability, I sincerely believe that
(15) renewable fuel, internal combustion engine must
(16) play a similarly important role as battery
(17) electric as we make transportation clean and
(18) sustainable. Thank you.

(19) MS. PIGGOTT: Thank you for your
(20) comments.

(21) Alright, our next speaker is Sam
(22) Beard who I am not seeing on the Zoom platform.
(23) Following Sam beard is Saleh Mousa who I am not
(24) seeing on the platform followed by Kathy Franke.
(25) Again, we are panel 35, if speakers two, three

(1) and four are on the Zoom platform, please raise
(2) your hands or send the meeting host a chat
(3) message if by chance you logged in under a
(4) different name.

(5) Okay, our next speaker is
(6) Shannon Baker-Branstetter. You are going to
(7) receive a prompt from me to promote to panelist
(8) which will allow you to unmute and turn your
(9) camera on if you choose.

(10) SHANNON BAKER-BRANSTETTER:

(11) Thank you for the opportunity to testify today.
(12) My name is Shannon Baker-Branstetter, I am the
(13) senior director for domestic policy at the Center
(14) for American Progress.

(15) Strong multi-pollutant standards
(16) for light and medium-duty vehicles are critical
(17) to protecting the public from both harmful
(18) pollutants and climate change. These hazards
(19) disproportionately impact disadvantaged
(20) communities and contribute to worse health and
(21) economic outcomes.

(22) To address the burdens, EPA
(23) should at a minimum finalize alternative one.
(24) However while it's a good starting point there
(25) are several critical improvements that should be

(1) made. First the final rule should include
(2) greater increases in stringency between 2030 and
(3) 2032. Alternative one has appropriately time
(4) ramped up stringency in the first three years.
(5) However these gains are potentially squandered by
(6) slower progress from 2030 to 2032.

(7) Second, EPA must ensure that the
(8) final rule achieves improvements for ICE
(9) vehicles. While manufacturers may choose to
(10) deploy zero-emission technology as the most cost
(11) effective method of compliance, it is critical
(12) that ICE vehicles also emit less. The final rule
(13) should guarantee reduced emissions for model year
(14) 2027 through 2032 ICE vehicles.

(15) Third and finally, EPA should
(16) take action to eliminate incentives for auto
(17) makers to build larger vehicles. Larger and
(18) heavier vehicles are more dangerous to other
(19) drivers and pedestrians. No reason why efforts
(20) to decrease emissions should result in bigger
(21) vehicles that are more expensive and more
(22) dangerous.

(23) Alternative one and the
(24) improvements I just outlined are practical and
(25) achievable. As EPA considers the proposed

(1) standards, the economy is already moving towards
(2) cleaner vehicles, and analysis from the ICCT
(3) finds that the Inflation Reduction Act and
(4) California advanced clean cars two standards may
(5) drive EV sales to 67 percent by 2032. By 2026
(6) OEMs previously announced investments in the
(7) battery facilities in the U.S. are anticipated to
(8) produce more batteries for 11 million electric
(9) vehicles per year.

(10) Auto makers themselves are
(11) already planning on significantly ramping up
(12) zero-emission vehicle sales and for those auto
(13) makers that are slower to meet the standards
(14) targets, there are many compliance pathways.
(15) Auto makers can buy, sell, carry forward or carry
(16) back credits in order to achieve compliance.

(17) More ambitious reductions can be
(18) achieved and we call on EPA to finalize the
(19) strongest possible standard by the end of the
(20) year to protect all Americans from transportation
(21) pollution.

(22) Thank you for the opportunity to
(23) testify and provide input on the proposed rule.

(24) MS. PIGGOTT: Thank you for your
(25) comments.

(1) Going to go back to a previous
(2) speaker, speaker three in panel 35, Dr. Saleh
(3) Mousa, I see you are now on, you have been
(4) promoted to panelist. You should be able to
(5) unmute and turn on your camera if you chose.

(6) SALEH MOUSA: Yup, can you see
(7) me?

(8) MS. PIGGOTT: Yes, and we can
(9) hear you. Go ahead. You have three minutes.

(10) SALEH MOUSA: Thank you. So
(11) these standards very quickly are ambitious, fine,
(12) but here are my comments. I live -- so the
(13) economic impact on the manufacturers and
(14) consumers first.

(15) So the proposed standards
(16) especially being more stringent even the
(17) alternative, these could impose substantial cost
(18) on the vehicle manufacturers leading to increased
(19) production cost and potentially higher cost for
(20) consumers not only for EVs but for ICEs, so these
(21) may effect the vehicles for five and ten years
(22) significantly for all the U.S. and particularly
(23) for the low income consumers.

(24) The technological feasibility is
(25) another concern, assuming that the technology is

(1) there for these stringent alternatives, my
(2) comment, I see this very risky to take this
(3) route. The final thing is the way that the
(4) standards are, they do not incentivize
(5) manufacturers to develop innovative technologies
(6) beyond what is required for compliance, so which
(7) slows down the rate of the current advancement in
(8) vehicle emission reduction.

(9) So I'd like the standards to
(10) address these things and address how energy
(11) savings or connectivity could be given a credit.
(12) Overall, I mean the standards seem to be reducing
(13) CO2 but the way it is it seems to be primarily
(14) aiming to reduce the reliance of U.S. on gas
(15) particularly more than the CO2. Thank you for
(16) giving me the opportunity.

(17) MS. PIGGOTT: Thank you for your
(18) comments.

(19) Alright, our next speaker Sam
(20) Beard I see has come onto the platform, and then
(21) I am not seeing you now. If you are on under a
(22) different name, please use the raise your hand
(23) feature in Zoom or send a note to the meeting
(24) host or if you called in by phone, you can press
(25) star nine.

(1) Alright, moving on Kathy Franke,
(2) who I am also not seeing on the platform this
(3) afternoon, Kathy Franke.

(4) Alright, Dr. Linda Singerman.

(5) LINDA SINGERMAN:Hello, can you
(6) hear me?

(7) MS. PIGGOTT:Yes, go ahead, you
(8) have three minutes.

(9) LINDA SINGERMAN:Thank you so
(10) much. Good afternoon, my name is Dr. Linda
(11) Singerman. I am testifying as a private citizen,
(12) a medical doctor, a mother and a grandmother. I
(13) practiced over 35 years.

(14) As an internal medicine
(15) physician and a hospitalist, I have treated
(16) patients with life threatening and respiratory
(17) cardiovascular effects of harmful air pollution
(18) from vehicles and from global warming.

(19) I urge the EPA to finalize the
(20) regulation as strong as alternative one and I
(21) really would like it to be stronger. Please
(22) continue to limit emissions and keep our air as
(23) clean as possible for all our health.

(24) Currently my neighbor here in
(25) Spokane, Washington can't leave the house one

(1) month of every summer due to poor air quality
(2) causing her respiratory distress and
(3) hospitalization.

(4) Our month plus of poor air
(5) quality is mostly from smoke from Canadian forest
(6) fires from global warming. However, one friend
(7) had to evacuate two years ago and another last
(8) year, both due to threat of forest fires here in
(9) our own area. I have had to install central air
(10) conditioning in a 60-year-old house, this area
(11) never needed air conditioning until recently all
(12) due to global warming.

(13) Global warming now causes
(14) delays -- causes days to weeks of over 95 to 100
(15) degrees in the summer. Last year it was 109
(16) degrees on my back porch and we are almost to the
(17) Canadian border.

(18) The transportation sector is the
(19) highest contributor to global warming emissions
(20) in the United States and overall accounts for
(21) more than 55 percent of noxious pollutants.
(22) These pollutants lead to increase risk of asthma
(23) attacks, strokes and heart attacks all of which I
(24) have treated over my career and seems to be more
(25) common.

(1) Stronger efficiency standards
(2) will lead to cleaner air that will lead to a
(3) healthier population, which will lead to medical
(4) savings, longer and healthier lives and increased
(5) GPA.

(6) I would like to thank everybody
(7) for giving me this opportunity to testify and to
(8) thank all the participants for bringing up such a
(9) wonderful conversation on this. Thank you.

(10) MS. PIGGOTT: Thank you for your
(11) comments.

(12) Our final speaker in panel 35 is
(13) Mona Sarfaty who I am also not seeing on the Zoom
(14) platform. Mona Sarfaty, if you joined on the
(15) platform under a different name, or you can
(16) message the meeting host. If you called in by
(17) phone, you can press star nine to raise your
(18) hand.

(19) Perfect. I see that Sam Beard
(20) in panel 35 is now on. Sam, I am going to send
(21) you a prompt to promote you to panelist.

(22) SAM BEARD: Hi, one second.
(23) Hello, good afternoon. Can you hear me alright?

(24) MS. PIGGOTT: Yes, go ahead.
(25) You have three minutes.

(1) SAM BEARD: Probably wouldn't
(2) use it all.

(3) Hi, my Sam Beard, I am a
(4) conservation organizer for Sierra Club Illinois.
(5) I have been working on clean transportation
(6) issues in the Chicago land area for about five
(7) years now, everything from stopping whole roads
(8) from being built through wetlands area, to
(9) working on clean trucks and clean car standards
(10) in the city of Chicago and the suburban area.

(11) One thing that's sort of been --
(12) I have been carrying with me throughout the last
(13) several months of my work is just this idea that
(14) the world isn't just dying, right, but it's
(15) actually being killed, right, our entire economy
(16) is sort of built around exploitative extraction
(17) industries that are harming our communities and
(18) poisoning our bodies and sending planet earth
(19) down a path of irreversible climate catastrophe,
(20) and we all know this, right, we see it everyday
(21) on the news, we feel it in our hearts and the
(22) uncertainty and precariousness that are sort of
(23) like the hallmarks of our current epoch are only
(24) going to continue to exacerbate and get worse as
(25) our lives move on and as we bring our children

(1) into this world and their lives go on.

(2) And federal regulators must do
(3) everything in their power to stave off the worse
(4) effects of climate change and prepare us for the
(5) coming storm.

(6) If you hear any background
(7) noise, I have my window open but I live right
(8) next to an interstate, 90/94 and I am regularly
(9) coughing because of diesel and gasoline fumes,
(10) right, Chicago has got some pretty bad traffic so
(11) often times there is just miles of gridlocked
(12) cars and, you know, the interstate wall is right
(13) there and when the wind hits right, it blows this
(14) like cloud of smog straight at my building down
(15) this alley and it goes straight into my window
(16) and I have to close my window and I am coughing
(17) and it stinks, you know, because I have the
(18) lovely little tree right outside my window and I
(19) love to open it up and I can't, right, and I wish
(20) that -- that I didn't have to live this way and
(21) thankfully we don't. Right?

(22) Greenhouse, we all know that
(23) greenhouse gas emissions from motor vehicles are
(24) like the major contributor to climate change and
(25) the EPA must fulfill its statutory mandate to

(1) protect public health and welfare by taking
(2) action to further curb those emissions.

(3) I think this proposal is a good
(4) first step but now the EPA must finalize the
(5) strongest possible long term standards this year
(6) to accelerate the adoption of zero-emission cars,
(7) pickup trucks and delivery vans. I know that
(8) that would make my life better because I wouldn't
(9) have these like scary clouds of smoke blowing
(10) into my windows whenever --

(11) MS. PIGGOTT: That's three
(12) minutes. Thank you for your comments.

(13) SAM BEARD: Thank you very much.

(14) MS. PIGGOTT: Alright, Mona
(15) Sarfaty, I see you are now a panelist.

(16) MONA SARFATY: When I promoted
(17) to panelist, my sound cut out, so if you gave me
(18) another instruction, I didn't hear it.

(19) MS. PIGGOTT: We can see you and
(20) we can hear you. We will go ahead and start your
(21) testimony in a moment but I am afraid your audio
(22) is not very strong. You may want to turn your
(23) video off to save bandwidth so we can hear your
(24) comments. Are you ready to begin?

(25) MONA SARFATY: Yes.

(1) MS. PIGGOTT: Go ahead and
(2) begin, you have three minutes.

(3) MONA SARFATY: Okay. Thank you
(4) for this opportunity to testify. My name is Mona
(5) Sarfaty. I am a family physician also trained in
(6) public health. I am here today representing the
(7) George Mason University Center For Climate Change
(8) Communication, a university based research
(9) organization with the mission of helping society
(10) make informed decisions that will stabilize the
(11) earth's life sustaining climate and prevent
(12) further harm from climate change.

(13) For the last decade, I have
(14) worked full-time on the health impacts of climate
(15) change which are real and growing. I have
(16) learned what we must do to prevent these impacts
(17) and live healthier lives. The regulation in
(18) question today will address climate change and
(19) improve air quality for many people that are
(20) currently burdened by unhealthy air it will also
(21) address climate change.

(22) We support EPA's proposal to
(23) reduce emissions from light-duty and medium-duty
(24) vehicles starting with model year 2027. I had a
(25) memorable personal experience a few years back

(1) when I was an Associate Professor at Thomas
(2) Jefferson Medical School in Philly. I had -- I
(3) was in the middle of teaching a public health
(4) class and had invited an air pollution expert.
(5) At that time I learned that Philadelphia was a
(6) non attainment area, that's in quotes for clean
(7) air standards.

(8) This was a big surprise and aha
(9) moment for me. I grew up in the suburbs, I had
(10) gone to college and then across the country for
(11) medical training and I don't think I had
(12) previously lived in a city that was considered a
(13) non attainment area and was not even aware that
(14) they existed. I wondered how many people in the
(15) city were coming to work everyday in that city
(16) without being aware they were breathing unhealthy
(17) air and that didn't include the people who live
(18) in the city and were breathing that air all of
(19) the time.

(20) At Jefferson Medical School, my
(21) colleagues found a project called allies against
(22) asthma, I have mentioned this before in EPA
(23) testimony but there were many communities around
(24) Philly where asthma rates were very high more
(25) than twice the national average. These were

(1) effecting children who lived in those little
(2) communities within the city and was essentially
(3) prominent in the corridors around the port and
(4) around the interstate highway where there was
(5) around the clock traffic.

(6) So my colleagues worked with
(7) school nurses and parents of the children to
(8) optimize treatment and try to prevent emergency
(9) room visits but the underlying problem was the
(10) traffic pollution and that continues.

(11) With clean cars and less
(12) polluting cars, that pollution will greatly
(13) diminish and will benefit the health of those
(14) children and children like them around the
(15) country.

(16) Impact on lung disease and heart
(17) disease from the pollution from vehicles is quite
(18) real. Before I founded the Medical Society
(19) Consortium on Climate and Health six years ago
(20) with my colleagues at George Mason, we did
(21) surveys of doctors about their experience with
(22) climate impacts. They revealed that doctors --

(23) MS. PIGGOTT: That's time.

(24) Thank you for your comments.

(25) Alright, we will now move onto

(1) panel 36 where you our first speaker is Samantha
(2) Schmitz.

(3) SAMANTHA SCHMITZ: Thank you so
(4) much for the opportunity to testify today. My
(5) name is Sam Schmitz, I am the DC field
(6) coordinator for Moms Clean Air Force currently
(7) living in DC.

(8) On behalf of Moms Clean Air
(9) Force and moms across the country, I encourage
(10) the EPA to finalize the ambitious and
(11) comprehensive standards this year. Tailpipe
(12) pollution from light and medium-duty vehicles
(13) harms everyone but especially those who live in
(14) high traffic areas like me and most other DC
(15) residents. Exposure to high levels of tailpipe
(16) pollution can cause asthma attacks, respiratory
(17) problems, cognitive problems, lung cancer and
(18) even premature death, and the harms of traffic
(19) pollution are not felt equally as people of color
(20) experience higher levels of pollution exposure
(21) than white Americans across the United States.

(22) Tailpipe exhaust from cars is
(23) also a significant source of nitrogen oxide which
(24) reacts in the atmosphere to form ground level
(25) ozone referred to as smog. Similarly tailpipe

(1) pollution is a source of dangerous particle
(2) pollution and unfortunately the recent 2023 State
(3) of the Air Report gave DC an F grade for ozone
(4) pollution and a C grade for 24 hour particle
(5) pollution.

(6) I feel the harmful effects of
(7) the soot and smog pollution first hand as I was
(8) diagnosed with asthma at two years old. I often
(9) have to take my inhaler and struggle to breathe
(10) on days with particularly bad air quality and I
(11) know I am not alone. Just in DC where there are
(12) over 12,000 kids and over 62,000 other adults
(13) that suffer from asthma according to the recent
(14) 2023 State of the Air Report. And what's worse
(15) is that black children are five times more likely
(16) to be hospitalized from asthma than non Hispanic
(17) white children.

(18) It's clear that pollution from
(19) light and medium-duty vehicles create vast health
(20) disparities and environmental injustice but this
(21) pollution also creates generational injustice by
(22) contributing to climate change. Children will
(23) live through three times as many climate
(24) disasters as their grandparents. And as a young
(25) person I am already feeling the generational

(1) impacts that dirty air and climate change cause
(2) but I can only imagine what my kids and future
(3) generations might experience.

(4) With that in mind, please
(5) remember that the vehicles included in the rule
(6) we are discussing today will impact our kids,
(7) families and communities for decades to come.
(8) The EPA must act now to adopt the strongest
(9) possible protections for light and medium-duty
(10) vehicles. Please protect our health and our
(11) future by finalizing the standards by the end of
(12) the year. Thank you.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Alright, our next speaker is
(16) David DJ Portugal.

(17) DAVID DJ PORTUGAL: Thank you
(18) for the opportunity to testify. My name is DJ
(19) Portugal. I am here today as a private citizen.

(20) I am a community organizer for
(21) Chispa Arizona, and as a father of four beautiful
(22) children, I also am here advocating on their
(23) behalf.

(24) I was born and raised in Los
(25) Angeles, California and some of my earliest

(1) memories of me sitting in front of a fan in the
(2) middle of the night struggling for air through
(3) difficult asthma attacks. I would always feel
(4) exhaustion at school the next day, headaches and
(5) a chest that's sore from gasping the night
(6) before.

(7) As it has already been cited
(8) here several times, I want to echo and stress the
(9) connection between asthma and high pollution
(10) areas. I vividly remember the smell of exhaust
(11) on my walk home from school crossing over the
(12) freeway overpass. Even in second grade, I
(13) remember feeling the air pollution, feeling an
(14) understanding that air pollution was a personal
(15) attack on my health and feeling helpless that
(16) there would be nothing I would be able to do
(17) about it.

(18) I am here today and as my
(19) country and state work to recover from the losses
(20) we have all experienced in the past years of
(21) pandemic. I worry that economic growth and
(22) recovery bring with it long lasting environmental
(23) health impacts.

(24) The transportation sector
(25) accounts for 27 percent of greenhouse gases and

(1) is the fastest growing emitter of greenhouse gas
(2) emissions. The transportation sector accounts
(3) for more than 55 percent of emissions in the U.S.
(4) and tailpipe pollution contains toxic and harmful
(5) compounds that pollute air quality and harm
(6) public health.

(7) Low income and communities of
(8) color are the most impacted by air pollution and
(9) with every breath they take, children and
(10) families of color are getting sicker in polluted
(11) neighborhoods. Stronger standards would address
(12) centuries of environmental racism and because the
(13) government played a significant role through
(14) practices like red lining, it has a moral
(15) obligation to remedy these injustices.

(16) So once again just asking or
(17) acknowledging that lower tailpipe emissions to
(18) zero-emission vehicles is a win for the American
(19) people and for those looking to protect health
(20) and for job creation, economic growth and family
(21) cost savings. For the health of our community
(22) and future generations we call on EPA to work
(23) towards the strongest protections for light and
(24) medium-duty vehicles. Thank you for the
(25) opportunity to testify.

(1) MS. PIGGOTT: Thank you for your
(2) comments.

(3) Alright our next speaker is Josh
(4) Skipworth.

(5) JOSH SKIPWORTH: Hi, everybody.
(6) My name is Josh Skipworth, I am the associate
(7) national director of Campaigns for Active Climate
(8) Emergency. I want to thank you for hosting the
(9) hearings.

(10) Right now as we heard from DJ
(11) and others, American transportation sector
(12) accounts for 27 percent greenhouse gas emissions
(13) more than any other sector and about 55 percent
(14) of nitrogen oxide emissions. These emissions
(15) which disproportionately impact low income and
(16) communities of color, decimate public health
(17) causing asthma and hearts attacks, strokes,
(18) cancer and premature death around the country.

(19) My home State of Texas, they
(20) have some of the highest tailpipe pollution
(21) emission rates, most of my cousins use inhalers
(22) and battle constant heart problems since they
(23) were kids, most of their kids now do too.

(24) The United States has made
(25) significant strides towards reducing its reliance

(1) on oil and putting more money in consumer
(2) pockets. We need to take another great leap
(3) forward and look to a zero-emission
(4) transportation future.

(5) Zero-emission standards and more
(6) EVs are one of the biggest way to get there.
(7) Enacting stronger vehicle regulations will
(8) improve air quality, lower public health risks,
(9) save billions of dollar and fight the climate
(10) emergency.

(11) Thank you all again for hosting
(12) the hearings and allowing us to speak on why we
(13) should enact the strongest possible limits.

(14) MS. PIGGOTT: Thank you for your
(15) comments.

(16) Alright, our next speaker is RJ
(17) Harrington, I am not seeing RJ on the Zoom
(18) platform. If you joined under a different name
(19) please use the raise your hand feature located at
(20) the bottom of the Zoom platform. If you called
(21) in by Zoom, you can press star nine to raise your
(22) hand.

(23) Alright, the next speaker is
(24) Darien Davis.

(25) DARIEN DAVIS: It seems I cannot

(1) start my video because the host has stopped it.

(2) MS. PIGGOTT: Let you me send
(3) you a prompt.

(4) DARIEN DAVIS: Awesome.

(5) MS. PIGGOTT: You have three
(6) minutes.

(7) DARIEN DAVIS: Perfect. Hello
(8) and thank you for giving me the opportunity to
(9) testify today. My name is Darien Davis, and I am
(10) a government affairs advocate for climate and
(11) clean energy at the League of Conservation Voters
(12) or LCV.

(13) I am here on behalf of members
(14) and network of 33 state partners to urge the EPA
(15) to enact the strongest possible limits on light
(16) and medium-duty vehicle pollution to chart a path
(17) to all new vehicles being tailpipe pollution free
(18) by 2035.

(19) I appreciate the Biden Harris
(20) administration for moving to tackle
(21) transportation pollution. In December 2021, they
(22) finished strong clean car standards through model
(23) year 2026. Now it's time to build on that
(24) momentum by enacting the strongest possible rules
(25) for model years 2027 and beyond. A final rule

(1) should lay the ground work for increased electric
(2) vehicle or EV adoption while simultaneously
(3) making gas cars more efficient.

(4) The proposed rule is a good
(5) first step with alternative one getting the U.S.
(6) on track in the early years but EPA should
(7) accelerate the emission reductions required after
(8) 2030. In order to tackle the climate crisis at
(9) the speed and scale that the science demands, we
(10) need standards that reduce 75 percent of carbon
(11) emissions from new cars and light trucks from
(12) 2021 levels by 2030. Ultimately 100 percent of
(13) new cars and light-duty trucks should be tailpipe
(14) pollution free by 2035.

(15) The EPA's own analysis found
(16) that the transportation sector contribute more
(17) than a quarter of all U.S. greenhouse gas
(18) emissions making it the larger contributor to
(19) climate change. If tackling the climate change
(20) isn't motivation enough, strong limits on GHG
(21) emissions from vehicles can help families reduce
(22) their transportation costs and perspective EV
(23) customers have more options. Ambitious standards
(24) would give manufacturers who already have begun
(25) to make their own electrification commitments the

(1) right signal that pushes them to sell even more
(2) EVs. This in addition to credits for the
(3) purchase of new and used EVs put in place by the
(4) Inflation Reduction Act can help make pollution
(5) free cars more accessible to consumers.

(6) It is clear that tackling
(7) pollution from light and medium-duty vehicles has
(8) been a top priority for the Biden Harris
(9) administration since day one. It's now time for
(10) them to finish the job.

(11) I urge the EPA to finalize the
(12) strongest possible limits on vehicle pollution.
(13) They should seek to finalize a tightened version
(14) of alternative one, the strongest standards the
(15) EPA analyzed in the proposal with ramped up
(16) limits on pollution after 2030.

(17) Thank you for the opportunity to
(18) testify today.

(19) MS. PIGGOTT: Thank you for your
(20) comments.

(21) Alright, our next speaker is
(22) Reverend Kyle Meyaard-Schaap.

(23) REVEREND KYLE MEYAARD-SCHAAP:
(24) Yes, hello, can you hear me?

(25) MS. PIGGOTT: Yes, go ahead.

(1) You have three minutes.

(2) REVEREND KYLE MEYAARD-SCHAAP:
(3) Thank you for the opportunity to testify today.
(4) My name is Kyle Meyaard-Schaap. I am the Vice
(5) President of the Evangelical Environmental
(6) Network, I am a pastor and the father of two
(7) boys, five years old and 15 months old.

(8) I want to thank you for your
(9) swift action with this proposed standard but I
(10) also want to urge EPA to create the strongest
(11) possible limits on vehicle pollution. Traffic
(12) pollution emits enormous amounts of toxins
(13) including 55 percent of the country's nitrogen
(14) oxide emissions. These pollutants harm the
(15) health of both kids and adults causing asthma,
(16) heart attacks, stroke, cancer, dementia and even
(17) early death.

(18) As an Evangelical pastor who
(19) believes in defending the sacredness of all life,
(20) I am deeply concerned about this. I want the
(21) unborn, young kids, the disabled, the elderly,
(22) people of color and other vulnerable populations
(23) to be unhindered by the ravages of pollution.
(24) But nitrogen oxides and the ozone that it creates
(25) do the opposite.

(1) Medical studies have shown over
(2) and over again that exposure to ozone can lead to
(3) severe cardiovascular and respiratory outcomes.
(4) PM2.5 is estimated to kill 200,000 Americans
(5) every year and it's the leading cause of one out
(6) of every nine premature pregnancies, 35 percent
(7) of which end in the death of the child.

(8) PM2.5 isn't a theoretical
(9) concern. I live in Michigan, where the largest
(10) city Detroit bares the dubious honor, number one
(11) asthma capital in the U.S. by the Asthma and
(12) Allergy Foundation of America. A recent
(13) University of Michigan study found that five of
(14) Michigan's ten environmental injustices are in my
(15) county. Each of these census tracts are near my
(16) home, near my kids and every single one of them
(17) touches US 131, the country's major north south
(18) traffic artery.

(19) While the proposal is a good
(20) first step, I urge the EPA to finish the job by
(21) finalizing the strongest possible standards this
(22) year. Alternative one is good initially but we
(23) need to increase the pace after 2030 to stay on
(24) the route to zero-emissions and we need to
(25) continue to make gas cars cleaner and more

(1) efficient.

(2) The good news is that vehicle
(3) manufacturers have the technology and commitment
(4) to meet strong standards, all they need is the
(5) strong signal from you to start investing in
(6) earnest in a zero-emission fleet future.

(7) In order to defend the lives of
(8) our kids and other vulnerable people, including
(9) people of color, I urge you to finalize the
(10) strongest possible standards this year without
(11) delay, our children deserve nothing less. Thank
(12) you.

(13) MS. PIGGOTT: Thank you for your
(14) comments.

(15) Alright, that was a last speaker
(16) for panel 36. So we will move onto panel 37. I
(17) only have one speaker in this panel, John Andrews
(18) who I am not seeing on the Zoom platform yet.
(19) John Andrews, if you are on under a different
(20) name, please raise your hand or send the host a
(21) chat message. If you called in by phone, you can
(22) press star nine.

(23) Alright, while we wait, if there
(24) is anyone else on the line that has not already
(25) provided a testimony and did not register to

(1) speak but would like to, you can use the raise
(2) your hand feature button at the bottom of the
(3) Zoom platform, send the host a chat message or if
(4) you called in by phone, press star nine.

(5) If you haven't already provided
(6) a testimony and would like to provide a testimony
(7) today, please raise your hand.

(8) David Patterson, I see your hand
(9) is raised, I am going to promote you to panelist
(10) so you can provide your testimony.

(11) DAVID PATTERSON: Good morning,
(12) this is Dave Paterson. I am speaking on behalf
(13) of the strong PHEV Coalition or at the request of
(14) the strong PHEV Coalition.

(15) As some of you know, I have had
(16) a long career in motor vehicles and I have
(17) watched the development of plug in hybrid
(18) electric vehicles from the beginning and with the
(19) -- with the amount of electrification that is
(20) necessary in the next ten years to meet both the
(21) air pollution and climate goals, we are going to
(22) need to electrify all sections of the vehicle
(23) spectrum, and the option to be able to use strong
(24) plug in hybrid vehicles that at -- at the same
(25) time meet low emission criteria pollutant goals

(1) but also reduce the amount of climate
(2) contaminants in the atmosphere.

(3) We -- I strongly recommend that
(4) EPA consider the inclusion of plug in hybrids as
(5) an option in a supplement to electric vehicles.
(6) Thank you very much.

(7) MS. PIGGOTT: Thank you for your
(8) comments.

(9) Alright, again, those are all of
(10) the speakers we have registered that are on the
(11) line. You have not already provided a testimony
(12) and would like to, please use the raise your hand
(13) feature at the bottom of your Zoom platform, you
(14) can also message the meeting host and if you
(15) called in by phone, you can press star nine to
(16) raise your hand.

(17) I'll pause here for a few
(18) moments to see if we have anyone else that would
(19) like to testify on the Zoom platform.

(20) If you didn't register to speak
(21) and would like to provide a testimony today,
(22) please raise your hand, send the host a chat
(23) message or if you called in by phone, you can
(24) press star nine to raise your hand.

(25) We will pause here for a few

(1) minutes to see if anyone else to would like to
(2) provide a testimony as part of this hearing.
(3) Thank you.

(4) Again, if there is anyone who
(5) did not register but would like to make a
(6) comment, please indicate this by raising your
(7) hand in Zoom, sending the host a chat message or
(8) if you called in by phone, you can press star
(9) nine to raise your hand, if you would like to
(10) provide a testimony as part of this hearing.
(11) Thank you.

(12) Alright, not seeing any
(13) additional requests to provide testimony, at this
(14) time we are ready to adjourn the hearing.

(15) EPA, are you ready to adjourn
(16) the public hearing?

(17) MR. OLECHIW: Yes, we are ready
(18) to adjourn. I am not able to start my video
(19) though. There we go, thank you, Jennifer.

(20) One moment, so I'd like to thank
(21) you all for your testimony throughout this
(22) hearing. This marks the end of the virtual
(23) public hearing for the proposed rule titled
(24) multi-pollutant emission standards for model
(25) years 2027 and later light-duty and medium-duty

(1) vehicles.

(2) I would like to remind everyone
(3) that in addition to this hearing there is also an
(4) opportunity to send EPA written comments. The
(5) written comment period closes on July 5 at 11:59
(6) p.m. eastern time. The details on where to
(7) submit written comments can be found in the
(8) Federal Register notice announcing the proposal
(9) as well as our website. Thank you all.

(10) MS. PIGGOTT: Thank you, Mike.

(11) Again, ladies and gentlemen,
(12) thank you for your participation. We will now
(13) stop the recording and end the hearing. Thank
(14) you.

(15) (Whereupon, the hearing is
(16) concluded at 2:44 p.m.)

(17)

(18)

(19)

(20)

(21)

(22)

(23)

(24)

(25)

CERTIFICATE OF OFFICER

I CERTIFY that the foregoing is a true and accurate transcript of the testimony and proceedings as reported stenographically by me at the time, place and on the date as hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

STEPHANIE LYN RAHN
License No. 975352
Notary Public of the
State of New Jersey
My Commission Expires
April 18, 2027

A	accommod...	Acid (1)	34:1	administra...	advances (1)
a.m (2) 1:6	107:12	93:20	add (2) 52:10	26:10 37:3	4:15
10:25	accommod...	acknowled...	52:15	55:24 57:2	advancing ...
abandon (1)	9:21	104:15	addition (8)	58:3 61:20	77:25
33:20	account (5)	acknowled...	3:10 8:7	89:24	advantage ...
ability (2)	44:10 71:16	21:5 79:16	18:24 23:1	104:15	33:17
47:5 63:13	90:25 104:1	136:17	111:17	106:11	adverse (1)
able (15)	106:22	acres (3)	113:8 141:2	107:20	116:14
12:21 14:15	accountabl...	50:19 51:25	148:3	111:15	advisor (2)
23:23 41:2	98:25	52:7	additional ...	113:15	77:17 81:4
43:25 46:21	accounting...	act (18) 4:20	7:9 8:1 9:13	139:20	advisory (1)
47:13 84:4	33:22 34:11	27:15 31:6	11:6 12:9	141:9	59:12
86:7 88:24	accounts (7)	47:8 61:1	14:14 25:15	admissions...	advocacy (1)
96:14 121:4	30:13 57:19	62:4,10	85:3 87:3	6:12	38:10
135:16	62:13	76:23 79:16	88:23	adolescenc...	advocate (2)
145:23	124:20	82:22 92:7	101:18	29:2	39:22
147:18	135:25	98:11	147:13	adopt (11)	139:10
absence (1)	136:2	107:19	Additional...	16:3 42:2	advocating...
34:17	137:12	112:22	49:6	45:2,25	134:22
absences (1)	accuracy (1)	113:25	address (19)	48:4 50:10	affairs (2)
6:14	10:5	120:3 134:8	24:13 30:4	52:25 60:23	17:22
absolutely ...	accurate (2)	141:4	30:8 32:7	76:12 117:8	139:10
21:6 66:11	23:9 149:4	acting (7)	40:9,14	134:8	affiliation (1)
109:16	accurately ...	38:21 55:25	41:23 58:4	adopted (5)	13:3
abundantl...	14:21 89:7	57:2 61:21	58:8 69:2	17:10 76:21	affordable ...
26:14	ACE (1)	62:19 89:24	104:18	113:1,2	26:18 28:15
ACC (1)	29:24	104:14	105:10	114:3	60:18
113:2	ACE's (1)	action (15)	110:6	adopting (1)	afraid (1)
ACC2 (4)	32:10	9:14 16:17	118:22	16:23	128:21
42:5,22	achievable ...	29:22 30:1	122:10,10	adoption (4)	African (1)
113:25	46:13,21	59:10 60:16	129:18,21	36:19 107:9	103:18
114:3	70:2,18	61:3 62:5	136:11	128:6 140:2	aftermarke...
accelerate (...)	76:16	97:23	addressed (...)	adult (2)	19:17 32:21
36:19 48:8	119:25	107:16	100:19	27:21 29:2	aftermath (...)
64:19 71:17	achieve (5)	119:16	addressing ...	adults (4)	67:24
128:6 140:7	78:25 84:12	128:2 142:9	67:15 70:13	44:3 67:7	afternoon (6)
accelerated...	112:21	149:10,13	77:24	133:12	66:17 87:4
42:4	117:12	actions (2)	adequately...	142:15	97:22 123:3
accept (3)	120:16	28:18 97:4	32:7	advance (5)	123:10
12:20 38:1	achieved (1)	active (2)	adjourn (4)	14:22 31:11	125:23
40:24	120:18	93:16 137:7	10:1 147:14	59:14 89:8	age (3) 28:2
acceptance...	achieveme...	actively (1)	147:15,18	109:1	68:7 96:12
70:23	18:10	60:7	adjourning...	advanced (6)	agencies (3)
accepting (1)	achieves (3)	activity (1)	87:11	17:12 69:17	17:14 41:12
14:6	4:25 43:2	63:11	adjustment...	76:6,19,20	112:17
accessible (2)	119:8	acts (2) 50:5	9:20	120:4	agency (8)
60:19 141:5	achieving (2)	90:23	adjusts (1)	advanceme...	1:3 2:23
	33:18 97:24	actual (1)	34:6	77:20 122:7	18:7 75:20

80:10 81:7	41:23 43:15	align (1) 6:24	122:19	American (...)	Andrea (3)
103:9	43:24 44:7	aligned (2)	123:1,4	25:16 31:23	20:18,19,21
110:12	44:8,11	41:19	125:23	34:15 48:14	Andrews (2)
Agency's (1)	48:12 51:14	115:11	128:14	73:16 74:2	144:17,19
2:3	55:23 57:7	alignment (...)	131:25	76:25	Andy (3)
agenda (1)	57:23 58:8	115:12	134:15	100:23	75:3,5,5
10:23	59:22 60:2	Allegheny (...)	137:3	102:14	Angeles (3)
aggressive ...	60:6,10,14	59:9,25	138:16,23	103:19	27:12,21
17:8 106:25	60:21 61:1	allergies (2)	141:21	105:3	134:25
agnostic (1)	62:22,25	43:22 68:4	144:15,23	118:14	ANHE (3)
98:17	63:3,8,9,13	Allergy (1)	146:9	136:18	38:11,11
ago (4) 35:4	66:19 67:9	143:12	147:12	137:11	72:23
44:25 124:7	67:12 68:25	alley (1)	altered (1)	Americans ...	announced...
131:19	69:19 73:18	127:15	65:24	32:2 68:23	3:16 77:3
Agreement...	73:21,24	Alliance (3)	alternative ...	73:17 90:16	106:11
15:16 37:7	74:11 76:10	38:10 72:22	29:9,10	105:5	120:6
94:21 104:7	81:6,11,19	77:18	41:25 42:4	109:20	announcin...
agrees (1)	82:17 89:25	allies (2)	55:17 58:11	120:20	8:12 9:16
100:18	90:5,7,10	26:11	63:20 91:25	132:21	148:8
agricultura...	90:15,18	130:21	118:23	143:4	annually (2)
110:17	91:23 94:4	allow (7) 5:12	119:3,23	amount (3)	77:5 91:3
aha (1) 130:8	94:9,16	12:22 19:21	121:17	75:16	answer (1)
ahead (15)	95:13 97:1	38:4 47:2	123:20	145:19	111:6
29:7 46:19	98:10 104:5	100:23	140:5	146:1	anticipated...
47:24 53:14	105:4,6	118:8	141:14	amounts (4)	113:24
56:11 59:5	108:19,25	allowed (3)	143:22	25:18 34:10	120:7
89:16 92:25	110:22	7:18 80:7	Alternative...	81:12	anxiety (1)
95:21 121:9	112:15,17	102:12	86:18	142:12	68:7
123:7	112:22	allowing (3)	alternative...	amplified (1)	anybody (1)
125:24	123:17,22	9:3 13:9	5:6,8,16	34:4	100:16
128:20	124:1,4,9	138:12	26:5,21	anachronis...	anyone's (2)
129:1	124:11	allows (1)	122:1	95:7,11	14:23 89:9
141:25	125:2	22:25	ambition (1)	analyses (1)	apologize (3)
aiming (1)	129:19,20	alright (41)	98:15	55:3	14:22 70:24
122:14	130:4,7,17	20:17 24:19	ambitions (...)	analysis (10)	89:8
air (116) 2:20	130:18	27:2 29:14	106:21	6:15 18:5	appears (4)
2:24 3:5 4:1	132:6,8	32:15 43:6	ambitious (...)	21:22 23:9	13:5 18:4,7
4:6,21 6:8,9	133:3,10,14	45:14 50:14	3:23 58:15	23:13 30:13	54:1
16:5,18	134:1 135:2	53:4 56:8	78:20 79:15	57:19 77:2	applaud (3)
24:5,12	135:13,14	59:4 61:15	120:17	120:2	58:2 98:2
27:14,15,16	136:5,8	61:17 64:1	121:11	140:15	112:7
27:25 28:5	138:8	72:14 75:3	132:10	analyzed (1)	applicable ...
30:8,20	145:21	77:14 80:23	140:23	141:15	11:19
31:7 35:23	airborne (2)	83:9 86:14	America (3)	analyzes (1)	apply (2)
36:9,16	43:22 44:4	87:2 89:13	29:8 59:24	6:15	8:17,19
37:4 39:9	akin (1) 42:5	92:21 95:16	143:12	Anderson (5)	appreciate ...
39:10,12	Alex (3)	97:19	America's ...	53:5,8,13	9:3 19:6
40:8,8	17:18,20,21	117:21	69:18 90:10	53:16,17	37:19 43:9

43:10 69:12	11:6	130:22,24	98:10,11	19:20	bar (1) 13:7
99:4 110:11	Ash (4) 29:16	132:16	authorized ...	aware (5)	bare (1)
139:19	29:17,20,21	133:8,13,16	8:19	39:19 91:12	90:12
appreciates...	asking (2)	135:3,9	auto (29)	100:13	bares (1)
41:24	53:6 136:16	137:17	5:21 25:16	130:13,16	143:10
approach (1)	aspect (1)	142:15	35:2 42:12	awareness ...	Barrera (1)
86:9	65:16	143:11,11	45:3 46:15	114:11	114:23
appropriat...	assess (1)	Atlanta (1)	46:21 47:2	Awesome (1)	based (14)
98:22	117:10	38:18	49:6,9 72:5	139:4	21:17,21
113:17	assist (1)	Atlas (1) 49:8	78:3,8 79:6		22:12 29:3
appropriat...	117:5	atmosph...	79:11,24	B	29:8 41:17
119:3	assisted (1)	101:14,19	80:4,6	B-U-C-I-C ...	97:7 98:22
approxima...	3:14	132:24	84:19 98:18	72:18	101:11
5:18 12:16	associate (3)	146:2	98:23,25	back (8)	102:17,20
17:4 77:5	73:9 130:1	attack (1)	106:13	10:18 19:2	103:15
apps (1) 14:2	137:6	135:15	114:16	24:3 87:16	108:25
April (3) 3:16	associated ...	attacks (10)	116:23	120:16	129:8
106:12	41:15 44:21	48:18 54:11	119:16	121:1	basins (1)
149:24	70:9,19	54:11 57:25	120:10,12	124:16	90:5
AQI (1) 60:4	76:8 116:11	124:23,23	120:15	129:25	basket (1)
arbitrarily ...	116:15	132:16	automaker...	backgroun...	19:19
26:14	association...	135:3	5:13	127:6	bath (1)
area (10)	17:23 41:18	137:17	automaker...	backstop (1)	95:10
38:18 70:1	48:15 73:16	142:16	7:1	102:19	batteries (4)
110:12	74:3 81:5	attainment...	automatica...	bad (7) 16:18	70:13
124:9,10	89:21 105:4	15:24 130:6	11:23	22:23 51:10	107:14
126:6,8,10	110:7,8	130:13	automobile...	62:25 97:1	113:11
130:6,13	112:17	attainment...	29:1	127:10	120:8
areas (6)	assumed (1)	90:19	Automotiv...	133:10	battery (24)
39:17 85:8	19:4	attempt (1)	32:18	bags (1) 65:7	18:25 19:18
85:9 105:5	assuming (2)	10:4	availability...	bail (1) 35:3	23:3 48:25
132:14	18:10	attendees' ...	18:5 78:22	Baker-Bra...	77:8 84:25
135:10	121:25	11:21	available (6)	118:6,10,12	84:25 85:24
argue (1)	assumptio...	attention (1)	3:7 9:6	balance (2)	85:25 86:1
100:16	71:25	37:11	11:14 50:1	101:16	86:5 113:9
argument (1)	asthma (33)	attentive (1)	64:18	117:13	115:20,24
100:21	6:13 16:1	70:3	113:19	Baltimore (...)	116:3,7,12
arguments ...	28:23 31:18	attorney (3)	average (8)	15:23	116:15,16
7:18	36:8 37:1	50:17 149:9	34:7 48:25	ban (2) 26:15	116:17,19
arisen (1)	43:23 44:1	149:12	53:22 81:14	26:22	116:24
65:18	44:3 48:18	attributabl...	91:2 97:7	bandwidth...	117:16
Arizona (5)	51:18 54:11	16:1	101:22	128:23	120:7
27:7 43:14	57:25 60:12	audio (1)	130:25	bandwidth...	battle (1)
44:16,18	67:7 74:13	128:21	averaging (1)	14:1	137:22
134:21	74:15 94:5	Austin (2)	84:15	banking (1)	Bay (1) 15:22
artery (1)	105:16	65:5 93:3	avoid (1)	84:15	beaches (1)
143:18	108:16	authority (4)	47:11	Baptist (1)	73:10
as-needed (...)	124:22	11:20 61:1	avoidance ...	103:17	beard (8)

117:22,23	11:25 44:6	51:24 93:20	boat (1)	breathe (6)	1:20 107:18
122:20	55:21 88:17	97:10	25:13	16:5 24:11	127:14
125:19,22	109:24	117:12	boats (1)	31:3 36:16	builds (1) 4:8
126:1,3	131:13	130:8	85:11	60:7 133:9	built (5)
128:13	benefits (14)	bigger (1)	bodies (1)	breathed (1)	25:23 42:21
Beatrice (3)	4:13,20 5:3	119:20	126:18	27:14	102:21
35:15,17,18	33:6,25	biggest (3)	body (1)	breathes (1)	126:8,16
beautiful (2)	34:1 41:15	74:1 90:21	94:25	94:9	bulk (1)
100:10	50:9 62:20	138:6	Boesenber...	breathing (...)	91:20
134:21	77:7 80:6	biking (1)	17:19,20,21	16:8,12	burden (3)
becoming (2)	94:6 101:2	54:6	bold (2)	28:5 36:9	55:22 57:6
46:18 65:16	113:11	bill (1) 51:7	16:16	44:8 54:6	59:16
bed (1) 63:7	best (4) 5:14	billion (6) 5:3	107:16	68:4 73:23	burdened (1)
beds (1) 31:2	50:20 81:22	42:24 49:9	boldest (1)	130:16,18	129:20
began (2)	111:12	52:11	104:20	Brian (3)	burdens (1)
27:8,16	better (7)	111:17,18	boldly (1)	115:6,7,8	118:22
beginning (...)	24:12 63:13	billions (4)	30:4	brief (1) 41:6	Burt (2)
29:9 145:18	67:6 80:16	6:25 25:17	boon (1) 78:8	bright (1)	95:17,24
Begulki (3)	83:4,6	34:13 138:9	Boone (1)	56:4	buses (1)
61:16,17,19	128:8	biofuels (2)	52:3	brighter (1)	16:7
begun (1)	BEV (4) 33:2	33:6 117:4	border (1)	95:13	business (6)
140:24	33:11,25	Bipartisan ...	124:17	brilliant (1)	11:16,16
behalf (10)	34:14	4:18 76:23	born (2)	54:15	25:22,23
2:22 32:10	BEVs (3)	79:17	16:19	brim (1)	79:22
59:10 69:11	34:4,8,22	bit (3) 37:19	134:24	65:12	100:10
75:7 89:22	beyond (15)	71:1 83:14	bottom (15)	bring (5)	businesses ...
132:8	29:1 37:8	black (4)	2:14 13:7	47:10 79:19	20:10 54:23
134:23	39:24 62:20	54:1,5	13:14 35:13	108:18	button (4)
139:13	66:23 74:16	105:12	41:1 80:9	126:25	13:7 35:12
145:12	93:9,10	133:15	83:21 86:21	135:22	83:21 145:2
believe (12)	94:18 95:3	blame (1)	88:9 92:17	bringing (2)	buy (2) 55:4
21:7,11	99:3,9	22:14	99:24 115:2	117:5 125:8	120:15
36:3 46:3	104:8 122:6	blanket (1)	138:20	broad (2)	Byers (4)
56:22 57:17	139:25	106:9	145:2	19:25 70:10	69:9,10,10
98:21,24	BGA (1) 78:7	block (1)	146:13	brokers (1)	71:3
99:5,7	bicycle (1)	108:21	Boulevard ...	79:12	
116:7	96:12	blocks (2)	1:21	Bronx (2)	<hr/> C <hr/>
117:14	Biden (7)	16:5 30:24	boys (1)	108:11,12	C (1) 133:4
believes (2)	37:3 58:3	blood (1)	142:7	brought (1)	California ...
101:8	103:20	95:10	break (6)	39:20	24:24 26:13
142:19	104:15	blowing (1)	9:22 11:5	Bucic (3)	31:5 81:1,8
Belmar (1)	106:11	128:9	83:12 86:17	72:15,16,18	81:11 82:11
1:21	139:19	blows (1)	87:6,11	build (7) 71:7	90:3,4
belongings ...	141:8	127:13	breaks (1)	75:22 78:10	91:14 96:1
65:12	Biden's (2)	Blue (2)	11:6	79:22 85:22	100:10
beneficial (1)	72:10	77:17 93:10	breath (3)	119:17	110:9 113:1
84:23	106:21	board (2)	68:6,11	139:23	113:25
benefit (6)	big (6) 44:17	59:12 81:5	136:9	building (3)	120:4

California'...	54:12 58:1	101:12,15	128:6	50:19 124:9	20:1 27:11
25:6 101:22	60:2,12	101:17,17	131:11,12	centuries (1)	28:18 30:8
call (8) 13:16	132:17	101:18,20	132:22	136:12	30:18 41:23
13:24 23:18	137:18	101:24	140:3,11,13	century (1)	44:22,23
35:10 83:23	142:16	102:9 111:6	141:5	65:17	45:20 46:10
86:23	Canyon (1)	140:10	143:25	CEO (2)	47:12 48:10
120:18	81:25	carcinogen...	case (2) 10:9	24:22 111:5	50:22 52:13
136:22	capable (1)	28:12	21:21	Cere (3)	52:17 58:5
call-in (1)	77:4	cardiovasc...	cases (2) 6:13	61:16,17,19	58:7 67:4,8
114:25	capita (1)	39:4 123:17	16:1	certain (2)	67:15 77:24
called (15)	51:17	143:3	Castle (1)	62:7 116:21	85:7 91:15
12:22 13:2	capital (2)	care (1)	73:19	certainly (1)	100:17,18
13:2 53:5	42:23	54:14	catalytic (1)	33:3	101:10
92:18 99:25	143:11	career (4)	96:22	certainty (5)	104:13,18
122:24	caption (1)	27:8 109:18	catastroph...	20:9 42:20	106:1 107:4
125:16	2:13	124:24	28:13 85:12	64:14 78:3	109:22
130:21	captioning ...	145:16	126:19	99:8	118:18
138:20	2:16 88:6,8	Carolina (1)	catastroph...	CERTIFIC...	127:4,24
144:21	88:11	103:22	46:9	149:1	129:7,12,15
145:4	captions (1)	carried (1)	cause (6)	certify (3)	129:18,21
146:15,23	2:11	73:13	16:10 59:17	32:22 149:3	133:22
147:8	capture (1)	carry (2)	82:5 132:16	149:8	134:1
calling (5)	74:19	120:15,15	134:1 143:5	cetera (1)	140:19,19
14:18 26:23	captured (1)	carrying (2)	caused (3)	96:22	changes (3)
84:7 89:4	33:23	52:5 126:12	81:19,21	chain (1)	93:20 95:8
108:5	car (30) 6:4	cars (54) 4:11	105:6	85:19	107:10
CALSTAR...	17:11 30:10	5:19 16:7	causes (2)	chains (5)	channel (1)
41:9,9,17	31:10 35:1	24:6,6 25:5	124:13,14	70:12,14,20	68:19
41:24	38:22 39:23	28:10,12,16	causing (5)	80:1,5	chapter (2)
camera (6)	40:6 52:23	36:12,20	60:7 78:13	challenge (1)	15:6 35:21
12:23 38:5	54:1,3,23	40:2 43:16	124:2	71:12	charge (4)
41:3 84:5	55:1 58:14	44:9 51:3	137:17	challenges ...	34:10,22
118:9 121:5	63:14 65:11	53:22,24	142:15	70:9	111:9,25
cameras (1)	66:7 76:7	55:4,5,25	CC (2) 2:13	challenging...	charger (1)
11:22	77:8,10	57:2 58:13	88:8	17:25	34:23
camp (2)	94:19 95:25	58:21 59:19	Cecil (1)	chamber (7)	chargers (2)
101:1,7	97:7 98:20	60:24 61:21	15:24	69:11,14	107:13
campaigns ...	104:9,21	64:21 76:19	cell (2) 18:25	70:6 71:3	114:8
29:22	110:19	85:20 90:9	109:11	71:21,24	charging (1...
114:11	113:2 126:9	90:15,21	Celsius (1)	72:7	18:13,17
137:7	139:22	91:7,13	107:18	chance (8)	33:11,14
campers (1)	carbon (22)	96:5,7	census (1)	9:24 11:4	34:17,18
85:11	25:10 33:19	103:25	143:15	26:2,3	49:21,24,25
Canadian (2)	42:18 46:5	104:14,14	center (5)	27:19 46:4	50:1 70:21
124:5,17	46:9,19,24	105:7	2:19 28:8	94:12 118:3	71:6 85:10
cancer (11)	47:10 51:16	106:14,22	65:5 118:13	change (47)	85:21,23
6:18 28:1	60:16 69:21	107:3 120:4	129:7	6:9 13:4	107:11
37:1 51:18	96:16	127:12	central (2)	16:21 19:1	111:24

116:17	134:22	126:10	139:11,22	32:1,7	closed (3)
Charlotte (1)	136:9	130:12,15	cleaned (1)	36:22 37:4	2:13,15
103:21	144:11	130:15,18	82:16	37:7 38:9	88:10
chart (1)	children's (2)	131:2	cleaner (21)	41:23 44:13	closely (1)
139:16	54:4 104:25	143:10	4:21 26:7	44:22,22,24	51:19
chat (15)	China's (1)	claims (1)	26:17 38:22	45:20 46:10	closes (2) 8:9
12:13 13:14	70:20	22:2	40:6,11	47:11 48:10	148:5
13:17,21	Chispa (1)	CLAIN (1)	44:8 49:5	48:12 50:22	closest (2)
14:17 35:14	134:21	103:6	51:4 55:16	52:13,17,25	31:13 39:6
87:3 89:3	choice (1)	clarifying (2)	58:14,14	57:7 58:5,7	closing (1)
99:25 115:3	56:3	7:23 14:8	67:12 81:11	59:11,16	14:2
118:2	choose (6)	class (3)	94:4 95:12	60:17 62:4	closure (1)
144:21	5:13 38:5	56:22 60:6	104:14	62:6,7,10	71:17
145:3	41:3 84:5	130:4	108:25	62:20 64:13	cloud (2)
146:22	118:9 119:9	classify (1)	120:2 125:2	65:13,18,21	93:11
147:7	chose (1)	42:12	143:25	65:24 67:4	127:14
cheaper (1)	121:5	clean (58) 4:5	cleaning (5)	67:8,12,15	clouds (1)
55:4	chosen (1)	4:15 17:11	37:2 54:3	77:24 78:18	128:9
check (1)	76:4	17:12 20:3	62:22 94:15	78:25 89:25	Club (6) 15:7
60:4	Christian (2)	24:11 27:15	102:11	91:14,15,23	35:21 92:20
chemist (1)	57:15	30:10,11	cleanliness ...	97:25 98:16	93:4 108:5
27:23	103:24	31:6,10,10	35:23	100:17,18	126:4
Chesapeake...	chronic (3)	33:16 34:1	clear (10)	101:10	co-benefits ...
15:22	44:1 60:13	38:10 39:23	22:12 26:14	104:5,7,13	91:9
chest (2)	68:10	40:13 41:14	27:16 42:4	104:16,18	CO2 (12) 5:8
68:12 135:5	church (2)	41:21,22	42:19 55:25	106:1,25	6:2,5 33:22
Chicago (3)	56:15	43:15,16	82:21 92:8	107:4	33:23 46:17
126:6,10	103:24	48:2,23	133:18	113:18	101:21,23
127:10	Cindy (4)	51:14 57:2	141:6	118:18	101:25
child (2)	59:2,3,7,8	61:1,21	clearly (5)	126:19	102:4
74:12 143:7	cited (2)	66:5,19	11:25 14:20	127:4,24	122:13,15
childhood (...)	51:21 135:7	76:7,19,20	37:16 88:17	129:7,11,12	coal (3) 22:20
16:1 51:18	cities (2)	78:5,23	89:6	129:14,18	51:19 56:14
52:1 74:11	59:24 90:11	90:23 98:1	Cleveland (...)	129:21	Coalition (3)
94:5	citizen (7)	98:10	54:3	131:19,22	84:9 145:13
children (25)	45:19 46:2	104:14,21	click (6) 2:15	133:22,23	145:14
6:14 44:2,3	51:2 59:9	110:22	12:20 13:9	134:1 137:7	coast (3) 65:8
54:10,19,20	61:20	111:11,12	13:11 88:8	138:9	65:15 90:18
55:21 56:25	123:11	112:22	88:9	139:10	cognitive (2)
57:18 58:22	134:19	113:1	clicking (1)	140:8,19,19	74:11
67:6,13	citizens (3)	115:20	13:6	145:21	132:17
82:25	43:11,19	117:17	climate (97)	146:1	cold (1)
109:23	44:6	120:4	4:14 6:9	clock (1)	85:10
126:25	city (16)	123:23	16:16,21	131:5	Cole (3) 56:9
131:1,7,14	27:20 28:7	126:5,9,9	20:1 27:11	close (5) 2:16	56:10,13
131:14	28:22 54:3	130:6	28:13,21	42:11 73:6	Colfax (1)
133:15,17	59:21 63:2	131:11	29:22 30:3	116:22	1:20
133:22	81:2,2 96:6	132:6,8	30:4,7,18	127:16	collaborati...

69:15	12:17 50:2	121:12	75:15 78:9	17:15 19:9	10:9 116:18
colleague (1)	52:14 63:6	122:18	78:24 82:12	complimen...	confront (1)
3:7	63:12 97:6	125:11	82:13 90:12	42:8	93:20
colleagues ...	127:5	128:12,24	98:6 104:25	comply (2)	congested (1)
3:12 130:21	130:15	131:24	105:13	79:13,24	73:13
131:6,20	comitted (1)	134:14	114:9	complying ...	Congress (1)
college (2)	69:22	137:2	118:20	25:6	4:18
93:6 130:10	Commenci...	138:15	126:17	component...	connected ...
color (17)	1:6	141:20	130:23	18:6 79:7	12:25
31:15 39:14	commend (2)	144:14	131:2 134:7	compostin...	connection...
44:20 60:9	47:14 103:8	146:8 148:4	136:7	36:12	13:23 135:9
73:22 75:15	comment (7)	148:7	137:16	compound...	connection...
82:14 83:2	5:5 8:9	Commerce ...	community...	30:20 54:9	13:25 87:13
90:12	89:19 99:14	69:11	7:6 26:11	136:5	94:5
103:22	122:2 147:6	commercia...	40:17 59:23	comprehen...	connectivit...
105:13	148:5	98:23	64:5,10	132:11	122:11
132:19	comments ...	Commissio...	80:5 93:6	concern (4)	consequen...
136:8,10	7:9,23 8:3,4	149:24	134:20	21:1,24	21:16,25
137:16	8:9,11	commitme...	136:21	121:25	conservatio...
142:22	10:12 12:9	15:15 31:11	companies ...	143:9	81:4 89:21
144:9	14:14 17:18	105:9 144:3	32:25 41:12	concerned ...	126:4
combat (3)	20:16 23:16	commitme...	111:1,16	45:20 71:24	139:11
60:16,17	24:18 29:13	6:25 57:11	company (1)	115:23	consider (9)
101:9	32:14 35:6	62:1 76:17	111:5	142:20	11:15 22:9
combinatio...	37:14,21	98:22 99:1	comparabl...	concerns (5)	23:2 34:5,8
111:2	40:3,21	104:22	49:2	18:3,17	64:12 78:11
combine (1)	41:6 43:5	140:25	compare (1)	70:6 71:14	79:5 146:4
20:14	45:13 47:19	committed ...	101:2	80:17	considerati...
combined (1)	50:13 53:3	49:11 92:4	compared (...)	conclude (1)	19:23 26:9
71:22	56:7 59:1	committee ...	5:10 39:11	47:14	considerati...
combustio...	61:14 63:25	59:13	46:17 77:9	concluded ...	70:4 78:21
25:24 26:12	66:14 69:7	committin...	compels (1)	148:16	considered ...
33:5 76:11	69:12 72:13	45:5	56:17	concludes (1)	22:11 33:20
79:7 82:18	72:19 75:2	common (2)	competitiv...	83:9	130:12
110:25	77:13 80:22	104:23	114:17	conclusion ...	considerin...
115:14	83:8 85:2	124:25	completed ...	32:5 45:1	23:1 37:10
116:1,25	86:11,12	Communic...	10:1	63:19	99:4 115:24
117:15	88:23 92:13	129:8	compliance...	conditionin...	considers (3)
come (8)	95:15 97:18	communiti...	72:3 79:15	124:10,11	22:4 23:9
22:16 28:11	99:15,18	16:13 30:9	79:19	conditions ...	119:25
53:11 63:5	103:3	31:21 32:9	119:11	39:4 68:10	consistent (...)
80:5 115:19	105:18	39:2,5,8	120:14,16	conducted ...	42:9 75:22
122:20	107:25	41:22 58:9	122:6	8:16	76:6
134:7	110:2	60:9 61:6	complicate...	conducting...	consortium...
comes (3)	112:11	62:17 64:23	93:25	8:15	41:11
39:5 60:22	114:21	64:23,25	complicati...	confidentia...	131:19
93:14	117:20	67:13,22	16:12 39:20	11:15	constant (1)
coming (8)	120:25	73:18 75:15	complimen...	conflict (2)	137:22

68:5	123:22	125:9	149:10,12	cousins (1)	114:15
constructe...	126:24	conversion ...	count (1)	137:21	118:16,25
28:17	143:25	96:4 97:15	34:3	create (11)	119:11
constructio...	continued (...)	conversion...	counted (1)	28:14 38:23	critically (1)
107:10	69:21	20:12	34:7	56:1 57:3	77:25
consultant ...	continues (2)	converters ...	counties (2)	61:22	crop (2)
32:24	49:22	96:22	51:22 60:1	106:12	52:18,20
consulting ...	131:10	cooperatio...	counting (1)	111:3,13,14	cropland (1)
32:19,20	continuing ...	9:3	74:19	133:19	51:7
consumer (8)	9:23 52:12	coordinate...	countries (2)	142:10	Cross (1)
18:16 25:20	continuous...	112:15,24	66:7 94:10	created (4)	108:12
33:13 70:4	20:22 39:1	coordinato...	country (14)	44:10	crossing (1)
70:11,23	contractor ...	66:19	39:11 40:16	101:24	135:11
114:11	2:8 3:14	103:14	67:10,18	102:10	crowding (1)
138:1	8:25 88:2	132:6	81:22 94:14	113:3	60:20
consumers ...	contradicti...	core (1)	104:11	creates (4)	culminates ...
4:14,23	28:10	80:11	106:16,23	80:15 102:4	49:19
6:20 19:3,3	contribute ...	corn (1) 51:2	130:10	133:21	culture (1)
19:14 33:15	73:20	correct (3)	131:15	142:24	66:8
34:16,19	118:20	13:10 29:17	132:9	creating (3)	cumulative...
84:21 85:6	140:16	112:7	135:19	96:2 100:12	48:17
99:8 121:14	contribute...	correcting ...	137:18	102:2	curb (1)
121:20,23	69:18	65:25	country's (3)	creation (5)	128:2
141:5	contributes...	correspond...	116:9	20:14 31:24	current (13)
consumpti...	6:8 15:18	25:10	142:13	58:23 105:1	5:10 15:13
104:3	15:20 30:18	correspond...	143:17	136:20	34:20 42:9
contact (2)	74:15 90:16	71:6	counts (1)	credit (1)	52:16,20
10:15 13:15	contributin...	corridors (1)	116:24	122:11	81:9 111:7
contain (1)	133:22	131:3	county (10)	credits (2)	111:15
36:24	contributio...	cost (14)	15:24 27:12	120:16	112:8 116:6
contains (3)	44:15	31:25 32:2	27:21 39:15	141:2	122:7
30:20 54:8	contributo...	72:1,3	59:10,25	crime (3)	126:23
136:4	67:4 91:19	75:18 76:18	67:16,16	82:22,23,24	currently (...)
contamina...	124:19	79:2,14,25	73:19	crisis (10)	14:12 16:22
146:2	127:24	119:10	143:15	30:5 32:7	28:17 48:20
contend (1)	140:18	121:17,19	couple (4)	37:5 59:17	49:23 52:6
44:23	control (7)	121:19	21:12 37:17	60:17 91:14	88:13 90:2
continue (20)	5:14 20:22	136:21	50:3 62:24	98:1,16	95:2 110:18
28:16 39:21	21:4 43:23	costs (5) 4:23	coupled (3)	106:2 140:8	123:24
40:9 46:23	51:10 74:16	6:21,23	22:7 74:5	criteria (3)	129:20
49:4 52:24	81:6	80:2 140:22	92:5	5:1 70:7	132:6
54:18 55:16	controls (1)	coughing (2)	course (1)	145:25	customers ...
58:13 60:15	10:9	127:9,16	22:8	critical (14)	47:6 49:13
87:22,24	convenient...	Council (2)	court (8)	43:3 67:14	140:23
88:3,12	23:10	48:3,23	11:7,11,25	70:10,14	cut (2) 106:3
102:19	convention...	councilma...	14:20 37:18	75:13 80:18	128:17
111:9	65:5 103:17	81:2	71:2 88:18	81:15 86:4	cutting (3)
115:19	conversatio...	counsel (2)	89:6	91:22 99:11	62:18 74:22

cycle (1) 101:17	53:24 68:14 73:9 112:5 135:4 141:9	decimate (1) 137:16	107:18 124:15,16	9:15 23:5	diesel (4) 52:5 57:7 102:23 127:9
D	days (16)	decimation... 117:3	Delawaria... 73:4	description... 10:5	diet (1) 51:12
D (2) 39:15 73:19	6:14 9:10 10:23 16:18	decision (2) 71:20 109:19	delay (1) 144:11	deserve (1) 144:11	different (13)
dad (2) 28:1 54:14	21:13 39:17 44:16 48:19	decisions (5) 18:18 21:17 21:21 109:13 129:10	delays (1) 124:14	designed (1) 106:14	19:3 32:25 35:11 92:16 99:23 100:25 114:24 115:1 118:4 122:22 125:15 138:18 144:19
damage (2) 16:9 27:25	52:18 63:2 97:13	declares (1) 55:9	deliver (4) 22:25 25:13 31:19 76:5	despite (1) 25:18	destroying ... 26:6
damaging (...) 28:4,24 55:12	100:14,16 108:20 124:14	declining (1) 76:18	delivers (1) 41:16	destruction... 61:5	details (4) 8:10 21:23 85:3 148:6
Dan (5) 69:9 69:10,10 70:24 71:3	133:10 DC (5) 132:5 132:7,14	decrease (4) 42:14 106:6 107:6 119:20	delivery (3) 36:20 38:17 128:7	deteriorate... 109:16	difficult (4) 55:11 66:8 71:13 135:3
dangerous ... 62:18 67:3 108:22 119:18,22 133:1	133:3,11 deadly (2) 16:18 39:7	decreases (2) 51:15 52:9	Dellolacon... 40:23 41:4 41:8	detracts (1) 33:25	difficulties ... 13:13
dangers (1) 107:7	deal (1) 67:20	deeply (2) 45:20 142:20	demand (5) 19:3,3 25:11 34:24 71:11	Detroit (1) 143:10	difficulty (2) 13:22 36:9
Darien (5) 138:24,25 139:4,7,9	dealers (1) 25:2	Deer (1) 52:15	demands (2) 33:13 140:9	develop (5) 22:2 34:14 69:16 78:5 122:5	diminish (1) 131:13
data (4) 8:1 78:21 81:20 82:4	death (5) 30:22 132:18 137:18	defeat (1) 97:25	dementia (2) 54:13 142:16	developed (...) 24:24 33:1	direct (1) 40:16
date (2) 9:11 149:6	142:17 143:7	defend (1) 144:7	dense (2) 73:6 96:6	developing ... 10:11	directing (1) 55:1
daughter (2) 56:21 58:18	deaths (4) 48:17 54:12	defending (...) 142:19	density (4) 96:19 97:1 97:2,3	developme... 21:23 33:12 52:7 74:12 113:12 145:17	direction (2) 54:19 114:19
daughters (...) 57:14,15	58:1 74:7	Defense (2) 48:3 75:7	dent (1) 66:1	directions (1) 65:9	directly (3) 25:19 36:8 111:22
Dave (1) 145:12	decade (2) 99:12 129:13	defined (1) 21:1	departmen... 6:12 80:14	diabetes (1) 60:12	director (8) 2:18 29:21 41:8 56:15 103:18 112:14 118:13 137:7
David (7) 43:7,8,13 134:16,17 145:8,11	decades (8) 16:14 32:4 46:6,19 59:23 62:16 71:14 134:7	definition (2) 22:12 52:12	deploy (3) 69:17 78:5 119:10	diagnosed ... 133:8	dirty (7) 21:23 31:17 44:10 51:20 90:13
Davis (5) 138:24,25 139:4,7,9	December ... 139:21	defrost (1) 24:5	deployed (2) 78:6 114:8	dialogue (2) 2:12 88:7	
day (13) 1:5 3:2 10:24 10:25 52:4 52:7 53:23	decide (1) 26:3	degrades (1) 91:6	deploymen... 42:23 71:10	dictate (1) 101:4	
	decided (1) 18:24	degree (2) 94:24,25	Depression... 50:25	diction (1) 28:25	
		degrees (7) 27:9 44:16 52:18 95:3	describe (1) 74:14	died (1) 28:1	
			described (2)	Diego (1) 81:3	

105:14	14:12,19	54:4 61:7	50:1 78:2	27:10 86:20	120:1
134:1	88:14 89:5	97:15	85:6,7,10	87:13 140:6	126:15
disability (1)	disproporti...	dollar (1)	85:11,16	142:17	eczema (1)
35:2	31:16 75:16	138:9	112:5	earnest (1)	68:7
disabled (3)	90:13 98:7	dollars (3)	119:19	144:6	EDF (1)
44:19 50:18	105:14	7:1 34:13	driving (6)	earth (4)	76:12
142:21	disproporti...	50:21	24:1 30:7	29:10 36:4	edit (1) 13:10
disadvanta...	60:10	domestic (1)	52:1 58:5,7	106:9	educates (1)
98:6	118:19	118:13	91:13	126:18	29:24
disadvanta...	137:15	dominance...	drop (2)	earth's (2)	education (1)
118:19	disrupt (2)	70:20	102:22,23	107:17	52:1
disappeare...	64:22 68:5	door (1)	drought (2)	129:11	effect (4)
51:5	disrupting ...	68:19	52:19 91:16	earthquake...	65:21 70:4
disasters (2)	101:15	DOT (1)	droughts (1)	85:13	116:5
44:13	distance (1)	80:14	107:7	easier (1)	121:21
133:24	51:25	Dover (1)	drove (1)	13:5	effected (3)
disbenefits ...	distances (1)	73:15	65:11	east (2) 65:15	60:10 82:12
101:3	85:9	downloads ...	drying (1)	81:3	91:15
discipline (1)	distant (1)	14:4	63:7	eastern (8)	effecting (4)
65:18	56:24	downsize (1)	dubious (1)	8:10 9:25	30:9 44:2
disclosure (...)	distracted (...)	25:9	143:10	11:2,5	58:9 131:1
11:19	110:24	dozen (1)	due (6) 62:25	83:13 87:9	effective (6)
discount (2)	distress (1)	76:21	82:2 108:15	87:14 148:6	28:9 48:21
115:13	124:2	Dr (3) 121:2	124:1,8,12	easy (2) 94:2	75:19 79:2
117:11	distributed...	123:4,10	duel (1)	97:15	110:19
discussing ...	9:18	draft (3) 41:6	85:16	echo (1)	119:11
134:6	district (2)	43:9 45:9	duffles (1)	135:8	effectively ...
discussion ...	81:6 90:18	dramatical...	65:6	economic (...)	30:6 33:9
7:25 25:21	divest (1)	106:6	durability (...)	28:14 31:25	58:6
disease (6)	34:14	drastically ...	113:9	41:15	effects (11)
6:18 37:1	DJ (4) 134:16	108:23	durable (1)	110:15	20:24 36:7
44:2 60:12	134:17,18	draw (1)	70:3	115:22	47:11 48:10
131:16,17	137:10	46:22	duration (1)	116:10	67:8 82:25
diseases (2)	docket (8)	dread (1)	8:20	118:21	83:1 91:5
16:20 51:19	9:8,8,14	43:24	dust (2) 63:6	121:13	123:17
disinvest (1)	12:11,11	driest (1)	63:11	135:21	127:4 133:6
79:21	88:25 89:1	50:24	duty (4) 1:11	136:20	efficiency (2)
disorders (1)	89:3	drive (9)	36:3 44:9	economical...	33:2 125:1
6:17	doctor (1)	20:13 22:22	94:2	83:5	efficient (10)
disparities ...	123:12	25:14 26:3	dying (1)	economics ...	25:12 40:12
39:12	doctors (2)	28:12 52:14	126:14	29:4	42:13 47:3
133:20	131:21,22	85:8 112:5		economies ...	51:4 55:17
dispatchab...	documente...	120:5	E	113:3	58:14
71:18	31:8	driven (2)	earlier (1)	economy (1...	110:19
display (1)	DOE (1)	66:7 91:16	106:21	20:2,10	140:3 144:1
12:14	80:14	driver (1)	earliest (1)	26:16,20	efficiently (2)
displayed (6)	doing (5)	107:3	134:25	28:25 80:11	26:8 100:20
12:15 13:11	23:8 36:10	drivers (9)	early (5)	98:1 105:8	effort (6)

24:14 69:23	113:10,23	131:8 137:8	85:1 90:14	employees ...	116:1,25
79:12 81:9	115:21,24	138:10	91:21 94:1	25:1 26:1	117:15
107:2	116:3,7,12	emission (27)	94:20 98:5	91:5	engineer (1)
112:24	116:24	5:9,13 26:5	101:23	employers ...	115:9
efforts (7)	117:17	31:20 40:1	102:1,4	78:13	engineerin...
26:4 42:11	120:8 140:1	46:11 47:4	104:2,10,12	employme...	32:19
79:24	145:18	47:16 48:25	105:6 106:3	72:5	engines (4)
110:11	146:5	49:3 59:15	106:5 107:6	enable (3)	19:23 25:9
112:7	electrical (1)	60:17 63:21	107:23	17:24,24	52:5 79:7
114:12	19:1	64:19 66:10	109:3	20:11	England (1)
119:19	electricity (...)	72:6 74:20	110:13,13	enabling (1)	112:18
eggs (1)	18:14 33:22	82:6 87:18	110:24	25:12	Englert (3)
19:19	48:16 71:13	96:2 97:6	113:5	enact (3)	45:16,17,18
eight (1)	71:18 74:6	98:12 122:8	115:25,25	98:1 138:13	enhanceme...
112:25	101:22	137:21	116:9 117:6	139:15	19:10,17
EJ (1) 78:24	106:18	140:7	117:11	enacting (3)	20:13
Elbert (4)	111:19,21	145:25	119:13,20	31:9 138:7	enormous (3)
95:17,19,23	112:3	147:24	123:22	139:24	25:18 34:8
95:24	116:17	emissions (...)	124:19	encourage ...	142:12
elbow (1)	electrificati...	1:10 2:5	127:23	12:23 17:14	ensure (14)
26:8	48:20 49:18	3:17,20,24	128:2	98:18	10:5 17:15
elderly (4)	93:22	4:1,10,25	129:23	115:13	47:12 49:18
44:19 83:1	114:10	6:1,5 7:11	136:2,3,17	117:8 132:9	71:5 75:23
109:24	140:25	15:12,19	137:12,14	encourage...	76:9 79:23
142:21	145:19	19:22 20:6	137:14	102:13	92:1 106:14
electric (56)	electrified (...)	20:8,22,24	140:11,18	encourages...	108:25
5:20,24	18:16 19:14	21:3,8 22:5	140:21	71:4	113:11
6:23 18:25	66:5	22:7,10,13	142:14	energy (11)	114:15
19:18 22:10	electrify (1)	22:16,24	emit (2)	22:25 34:10	119:7
22:22 24:2	145:22	23:2,2 25:7	101:18	38:10 66:5	ensuring (1)
24:7,14	electronica...	28:23 30:14	119:12	70:19	48:8
25:17 46:24	9:6	30:16,17,25	emits (1)	101:21,23	entire (4)
49:1,4,7,12	eliminate (6)	31:21 32:22	142:12	102:1,5	23:8 58:15
49:15,19,22	26:12 44:4	33:2 43:20	emitter (3)	122:10	67:18
52:15 70:5	44:14 81:16	45:23 46:6	30:16 57:22	139:11	126:15
76:11,25	96:5 119:16	46:9,23	136:1	enforceabl...	entirely (2)
77:8 79:8	eliminating...	47:9,10	emotional (1)	76:5	25:23
84:22,25	82:17	48:7,22	68:1	enforcing (2)	113:17
95:25 96:4	Ellsworth (4)	57:20 59:19	emphasize ...	12:6 88:20	entitled (1)
97:14 98:4	23:18,22,24	62:11,14	59:18	Engageme...	7:10
102:24	23:25	63:14 64:15	emphatical...	56:16	environme...
106:14,20	embrace (1)	65:23 66:1	21:9	103:19	21:1 24:12
106:22	28:11	66:9 67:14	emphysem...	engine (13)	26:20 38:13
107:12	emergency ...	69:19 73:20	28:2	2:19 22:22	45:21 72:25
110:7,8,19	6:12 29:22	74:1 75:10	empire (1)	25:12,24	82:24 93:8
110:20	59:11 64:14	75:12 77:23	95:7	26:6,13,22	103:15
111:22	65:21	81:13,14	employee (2)	96:21,24	110:10
112:6 113:9	108:18	84:13,24	149:9,11	115:14	environme...

26:11 31:12	66:24 68:20	113:14	estimated (2)	115:19	19:17
33:6 34:9	69:3,16,22	114:18	32:1 143:4	evolving (1)	existed (1)
40:15 53:17	71:4,21,25	115:11	estimates (4)	28:11	130:14
56:17 75:7	72:8,25	117:6	6:20 18:8	EVs (15)	existential ...
77:19,25	73:2 74:17	129:22	71:9 79:14	17:16 22:15	30:19
78:1,24	74:19,20	140:15	et (1) 96:22	22:19 28:15	existing (3)
80:2 82:23	75:13 78:16	EPA-HQ-...	ethanol (2)	70:11,23	18:12 33:7
104:19	78:20 79:23	9:9 12:12	51:1,19	71:10 85:25	33:17
105:9 109:1	80:10,12,16	89:2	Europe (1)	98:19 107:9	expand (1)
110:12	84:10 87:5	epapublich...	93:23	107:21	7:19
112:21	87:7,22,23	13:16	EV (16)	121:20	expanded (1)
115:21	91:22,24	epoc (1)	18:13 70:12	138:6 141:2	19:13
116:15	97:4 98:2,9	126:23	70:14,20	141:3	expansions...
133:20	98:14 99:4	equally (1)	71:6 72:9	exacerbate ...	20:13
135:22	100:5,13,14	132:19	72:11 77:11	36:25 70:19	expected (7)
136:12	112:7 113:5	equipment ...	86:5 99:1	126:24	4:13 14:11
142:5	115:13	102:9	102:18	exacerbate...	18:23 49:4
143:14	117:8	equitable (2)	107:11,14	109:14	71:17 91:17
environme...	118:22	17:15 61:10	120:5 140:2	exactly (1)	114:3
38:11,15	119:7,15,25	equity (1)	140:22	39:21	expensive (2)
72:22	120:18	78:25	evacuate (1)	example (2)	34:25
Enzmann (3)	123:19	equivalent ...	124:7	85:19 86:4	119:21
108:2,3,4	127:25	84:24	Evangelica...	exceed (6)	experience ...
EPA (114)	128:4	era (1) 20:3	53:17 56:16	12:7 32:3	13:22 14:2
2:3,8 3:12	130:22	Erandi (3)	142:5,18	72:10 76:7	21:3 31:16
3:13,16 5:5	132:10	66:16,17,18	eve (1) 95:6	88:21	46:22 52:17
5:16,21	134:8	escaped (1)	evening's (1)	106:21	54:2 60:11
6:14,15,20	136:22	65:8	88:2	exceeds (2)	68:11 98:7
8:8 9:17	139:14	especially (...)	events (9)	94:9 113:15	105:13
10:3,16	140:6	16:13 27:25	44:14,24	excellent (1)	129:25
14:7 15:7	141:11,15	54:10 60:8	52:14,19	96:9	131:21
16:3 17:1,7	142:10	73:11 75:14	64:22,24	excessive (1)	132:20
17:13 18:4	143:20	84:23 85:15	65:1 67:18	35:3	134:3
18:4 19:21	146:4	90:11 98:5	68:8	excuse (1)	experience...
21:11 22:2	147:15	121:16	Evergreen ...	79:21	16:14 62:24
23:12 30:2	148:4	132:13	97:23	excuses (1)	74:13
31:10,25	EPA's (29)	essential (6)	everybody ...	29:3	135:20
32:5 36:17	2:19 3:4 4:5	46:14 47:8	100:17	Executive (1)	expert (1)
38:21,23	4:8 5:12 9:6	51:8 77:24	101:4 125:6	112:14	130:4
42:2 43:2,9	20:6 30:12	102:13	137:5	exhaust (5)	Expires (1)
43:17 45:1	42:1 43:16	117:13	everyday (7)	20:22 62:22	149:24
46:7,12	45:22 54:25	essentially ...	25:5,13	63:8 132:22	exploitativ...
47:14 48:4	57:18 60:25	84:23	31:1,3	135:10	126:16
49:17 50:10	71:9,15	101:15	108:16	exhausting ...	exposed (1)
51:3,6	75:18 76:8	131:2	126:20	100:15	75:16
52:23 55:14	76:12 82:4	EST (1) 1:6	130:15	exhaustion ...	exposure (5)
55:25 57:3	86:6 103:23	established...	evidence (3)	135:4	6:16 57:23
58:2 61:21	105:9	3:25 4:9	8:17 42:23	exist (1)	132:15,20

143:2	82:21	86:8	feed (1)	73:3 75:20	51:20
exposures (2)	factually (1)	fastest (3)	52:11	118:23	fires (5)
39:13 94:11	22:13	30:16 57:22	feedback (1)	120:18	65:14 85:13
expressed (1)	fail (1) 78:19	136:1	79:1	123:19	91:16 124:6
77:22	failed (1)	fatality (1)	feel (6) 74:10	128:4	124:8
Expresswa...	95:8	44:17	87:12 95:1	132:10	firm (1)
108:13	Failing (1)	father (6)	126:21	141:11,13	32:20
extends (1)	78:11	27:20,22	133:6 135:3	144:9	first (24)
99:3	fails (2) 65:21	50:18 56:19	feeling (5)	finalized (4)	10:24 14:24
extinguishe...	70:7	134:21	60:3 133:25	4:2 30:12	18:4 29:15
28:20	faith (3)	142:6	135:13,13	42:17 61:2	30:25 36:6
extraction ...	103:19,22	father's (1)	135:15	finalizes (1)	45:15 46:14
116:16	104:23	27:23	feet (1) 68:21	78:18	61:11 64:21
126:16	fall (1) 15:14	fatten (1)	fellow (1)	finalizing (7)	78:18 89:11
extrapolate...	familiar (2)	80:8	48:2	8:5 45:9	95:6,25
18:9	21:14 90:8	Fax (1) 1:22	felt (2) 60:8	55:14 74:21	100:3 115:6
extreme (4)	families (6)	fearing (1)	132:19	91:24	119:1,4
64:22 67:18	26:2 67:2	105:1	fever (1) 95:4	134:11	121:14
68:8 90:18	109:1 134:7	feasibility (2)	fewer (2)	143:21	128:4 132:1
extremes (1)	136:10	113:21	6:13 102:4	finally (6) 8:6	133:7 140:5
62:7	140:21	121:24	Fibromyal...	10:3 14:22	143:20
	family (5)	feasible (7)	68:10	71:24 89:8	fits (1)
F	16:10 31:25	17:9 75:18	field (2)	119:15	109:10
F (1) 133:3	93:22 129:5	79:2 83:5	20:22 132:5	financial (3)	five (13) 7:4
face (3) 18:8	136:20	86:6 92:9	fight (4)	35:2 68:1	30:23 34:21
55:7 111:3	fan (1) 135:1	102:18	29:25 37:4	112:8	51:1 68:18
facilitating ...	far (8) 28:2	feature (11)	104:13	financially ...	86:4 96:20
9:1 70:10	28:22 56:24	13:14 35:12	138:9	149:13	96:21
facilitator (2)	70:8 90:12	83:21 86:21	fill (1) 93:9	find (3) 13:6	121:21
2:9 88:2	96:25 97:1	92:17 99:23	filled (1)	65:10 66:9	126:6
facilities (2)	97:1	115:2	65:11	finding (1)	133:15
77:3 120:7	farm (3) 51:6	122:23	film (2) 54:1	36:12	142:7
facility (1)	102:9,11	138:19	54:5	findings (2)	143:13
68:22	farmer (1)	145:2	filters (2)	82:10,10	fleeing (2)
facing (1)	102:8	146:13	5:25 76:14	finds (3) 77:2	65:1,14
71:13	farming (1)	featured (1)	final (12)	78:8 120:3	fleet (10)
fact (2) 22:23	102:3	111:5	20:7 27:3	fine (2) 90:20	5:15 18:22
70:18	farmland (4)	federal (16)	43:6 61:15	121:11	34:7 46:17
factor (1)	50:20,22	3:24 4:10	75:12 80:23	finish (3)	48:22 61:9
96:13	51:25 52:7	7:13 8:12	119:1,8,12	55:14	76:17 98:24
factors (6)	farther (2)	9:15 10:8	122:3	141:10	114:15
33:19 34:25	65:10,11	17:3,14	125:12	143:20	144:6
70:10 96:23	fast (6) 34:18	19:7 41:8	139:25	finished (3)	fleets (4) 7:3
113:22	34:23 37:17	76:18	finalize (18)	7:22 18:6	79:19 85:12
117:12	70:8 82:22	106:24	7:14 15:7	139:22	99:1
factory (1)	104:23	113:5	36:17 38:24	fire (3) 28:19	flexibility (2)
102:3	faster (3)	114:14	43:18 51:3	63:6,11	47:4 84:18
facts (1)	82:17,18	127:2 148:8	66:24 69:3	fired (1)	flexible (4)

46:13 47:2	29:8	117:3 118:1	85:16	funding (1)	40:11 46:23
70:2 86:8	foregoing (1)	134:21	100:11	92:7	48:7,24
flooded (1)	149:3	Fourth (1)	101:12	fungi (1)	55:5,16
67:23	foremost (1)	47:7	102:2,10,16	51:10	57:20 58:13
flooding (2)	61:11	fraction (1)	102:17	furniture (1)	62:13 64:15
51:15 91:16	forest (3)	116:6	105:7	109:9	65:23 67:14
floods (3)	28:19 124:5	framework...	109:12	further (8)	74:1 75:10
16:18 85:15	124:8	42:7	111:1	10:14 21:8	79:9 81:13
107:8	form (1)	Francisco (2)	115:13	31:11 105:2	84:12,24
flourishing...	132:24	95:24 96:19	117:15	113:22	94:20 104:2
46:5	formal (2)	Franke (3)	fueled (1)	128:2	106:5,8
Flow (2)	8:16 80:15	117:24	18:25	129:12	107:6,22
100:8,9	formation (...)	123:1,3	fueling (1)	149:8	116:3,8
focus (3) 26:4	73:21	frankly (1)	44:12	Furthermo...	117:6,9
64:10	former (4)	117:1	fuels (8)	42:10	122:14
117:10	28:3,3 64:6	free (6) 40:12	22:20 34:1	future (33)	127:23
focused (2)	74:9	46:24 87:12	69:21 96:16	21:2 29:25	136:1
20:23 72:24	forth (2)	139:17	101:16	30:5 32:9	137:12
focusing (3)	41:25 149:7	140:14	102:20	35:25 44:23	140:3,17
38:9,12	forum (1) 8:3	141:5	110:16	45:9 46:4	143:25
97:24	forward (11)	freedom (3)	111:10	46:25 47:12	gases (10)
folks (2)	4:5 7:8	100:24	fulfill (1)	48:9,11	3:25 4:6 5:1
31:16 32:11	36:15 40:10	101:7	127:25	49:8,12,20	44:5,12
follow (3)	43:1 58:4	102:13	fulfilling (2)	51:11 55:11	57:22 91:19
51:19 105:8	67:2 75:19	freeway (1)	15:15 105:1	56:4,24	106:8 107:3
114:4	98:2 120:15	135:12	full (3) 46:4	58:18 59:20	135:25
followed (1)	138:3	freezes (1)	47:13 98:10	62:8 78:4	gasoline (9)
117:24	fossil (6)	67:20	full-time (1)	78:10 95:13	5:25 6:1
following (3)	22:20 29:1	freight (1)	129:14	99:6,9	49:2 74:22
78:17	101:12	31:14	fully (5)	109:23	76:14 77:10
104:17	102:17,20	frequent (1)	41:19 46:18	134:2,11	102:23
117:23	109:12	62:8	49:19 55:4	136:22	106:17
food (3)	foster (1)	Fresno (1)	63:11	138:4 144:6	127:9
36:12 52:1	114:13	90:4	Fulton (1)	futures (1)	gasping (2)
52:9	found (5)	friend (1)	39:15	82:25	43:24 135:5
footprint (3)	8:11 130:21	124:6	fumes (3)		gathered (1)
25:10 34:5	140:15	front (4)	24:8 57:7	G	40:2
42:11	143:13	31:21 70:17	127:9	gains (1)	generated (2)
force (5)	148:7	107:1 135:1	function (2)	119:5	42:22 107:3
43:15 66:19	Foundatio...	fruition (1)	86:21 115:2	games (1)	generating ...
116:6 132:6	143:12	117:6	functionall...	95:9	22:17
132:9	founded (1)	frustrated ...	22:4	garden (1)	generation ...
forced (1)	131:18	96:3	Fund (1)	31:1	18:14 48:16
34:13	four (10)	fuel (22) 4:24	75:7	gas (44) 4:4	59:17 71:18
forces (2)	15:25 46:12	6:22 19:24	fundament...	4:10 15:12	116:17
51:21 60:16	68:16 99:10	20:23 25:12	22:24 65:16	15:19 27:17	generation...
Ford (1) 45:4	105:4 108:8	26:3,5,21	fundament...	30:14,17	133:21,25
Ford's (1)	116:11	29:1 33:23	65:23	33:5 34:23	generation...

32:9 35:25	123:18	going (21)	grade (4)	77:18	7:6 67:7
44:23 46:4	124:6,12,13	10:18,19	39:15 133:3	102:23	growing (5)
47:12 105:2	124:19	14:25 16:17	133:4	greenhouse...	30:16 57:22
134:3	globally (1)	16:21 23:21	135:12	3:25 4:4,6	114:13
136:22	41:11	24:16 27:9	graduates (1)	4:10 5:1	129:15
gentlemen ...	Gloria (2)	37:25 52:4	58:19	15:12,18	136:1
29:14 37:16	114:22,23	53:6 70:8	graduating...	30:14,17	growth (4)
148:11	GM (1) 45:4	78:19 84:2	56:22	44:5,12	4:16 31:25
geo (2)	go (29) 8:14	108:10	grams (4)	48:7,24	135:21
115:22	10:19,22	118:6 121:1	101:21,23	57:20,22	136:20
116:10	11:10 16:8	125:20	101:25	62:13 64:15	guarantee (...)
George (2)	24:2 47:24	126:24	102:4	65:23 67:14	119:13
129:7	53:14 54:14	145:9,21	Grand (2)	74:1 75:10	guide (1)
131:20	56:11 57:11	good (34) 2:1	81:25	81:13 84:12	94:9
Georgia (2)	59:5 73:8	2:22 17:20	105:24	84:24 91:19	guided (1)
57:5,9	87:8 89:16	24:21 35:17	grandfathe...	94:20 104:2	117:10
getting (2)	92:25 95:3	36:4 38:7	50:18	106:5,8	guidelines (...)
136:10	95:21	41:4 43:8	grandmoth...	107:2,6,22	94:10
140:5	102:21	43:23 45:17	123:12	115:15	Gulf (2) 65:8
GHG (4)	108:21	48:11 54:21	grandpare...	116:3,8	65:15
21:8 30:16	121:1,9	55:13,17	46:3	117:6,9	
34:7 140:20	123:7	58:11 64:3	grandpare...	127:22,23	H
gifts (1) 36:2	125:24	66:17 79:12	133:24	135:25	habitat (1)
give (8) 9:4	127:1	80:25,25	granted (1)	136:1	51:8
12:3 53:12	128:20	97:21	28:2	137:12	habitats (1)
55:10 56:4	129:1	100:12	grateful (1)	140:17	91:6
58:16	141:25	104:22	3:1	greening (1)	Hagen (1)
110:21	147:19	117:1	grave (2)	24:14	1:14
140:24	goal (7)	118:24	30:8 58:8	grew (5)	half (3) 76:21
given (4)	17:25 21:6	123:10	gravely (1)	27:12,20	106:3,22
8:22 107:15	26:14 36:17	125:23	21:17	67:19	hallmarks (...)
113:17	58:17 72:10	128:3 140:4	grease (1)	108:11	126:23
122:11	113:15	143:19,22	26:8	130:9	hand (30)
gives (2) 99:7	goals (12)	144:2	great (5)	grid (5)	23:20 30:25
106:1	20:6 37:7	145:11	50:24 63:7	24:15 49:4	35:12,12
giving (7)	79:1 86:8	governmen...	63:12 74:21	71:8 101:22	36:6 64:21
26:2 38:19	91:23 104:7	93:7,19,21	138:2	102:20	83:21,24
47:3 110:6	112:22	97:25	greater (6)	gridlocked ...	86:21,24
122:16	115:12,16	109:14	42:22 98:19	127:11	92:17,19
125:7 139:8	117:6	111:8,18	99:8 115:25	grids (1)	99:23 100:1
glad (1) 98:9	145:21,25	136:13	116:6 119:2	107:12	115:1
global (16)	God (2) 56:4	139:10	greatest (2)	ground (5)	122:22
18:8 70:20	57:16	governmen...	62:10	73:21	125:18
91:14 93:14	God's (1)	106:25	115:21	101:13	133:7
93:24 94:8	105:1	governmen...	greatly (3)	108:6	138:19,22
94:14,22	goes (2)	7:8	46:15 117:5	132:24	144:20
98:1 107:2	19:20	GPA (1)	131:12	140:1	145:2,7,8
114:17	127:15	125:5	green (2)	groups (2)	146:12,16

146:22,24	67:21	138:8	147:23	94:21	131:4
147:7,9	hats (1) 81:5	142:15	148:3,13,15	105:10	highways (4)
handheld (1)	hay (1) 51:8	healthier (5)	hearings (5)	114:13	16:14 39:3
28:19	hazardous ...	36:11 38:15	9:20 29:23	117:7	60:20 68:18
hands (2)	52:6	125:3,4	32:12 137:9	140:21	hill (7) 25:14
87:3 118:2	hazards (1)	129:17	138:12	141:4	95:17,18,19
happen (1)	118:18	healthy (5)	heart (9)	helped (1)	95:23,24,24
24:10	haze (6)	16:5 35:24	6:18 54:11	76:24	Hispanic (1)
happening ...	81:19,21	38:11,14	55:12 57:25	helping (4)	133:16
95:2	90:22,23	72:22	60:11	9:2 32:20	historian (1)
happens (1)	91:1,10	hear (21)	124:23	75:23 129:9	95:6
64:22	headaches ...	10:10 16:7	131:16	helpless (1)	historic (2)
happy (1)	135:4	47:22 53:9	137:22	135:15	42:8 76:22
84:10	health (62)	53:10 59:3	142:16	Henry (1)	historical (1)
hard (2)	4:14,21	68:6 72:16	hearts (3)	29:7	76:17
68:13 100:6	6:16 16:10	83:25 89:15	54:5 126:21	hereinbefo...	historically...
hardest (1)	30:21,21	92:24 95:20	137:17	149:7	18:11
81:15	31:24 32:1	109:6 121:9	heat (4)	Hernick (1)	history (2)
hardware (1)	36:25 38:13	123:6	16:18 52:19	99:21	40:14 95:5
22:21	39:19 40:15	125:23	57:25 73:11	Hi (6) 27:5	hit (1) 23:19
harm (8)	40:17 41:15	127:6	heavier (1)	84:6 110:5	hits (2)
30:21 31:16	43:19 44:17	128:18,20	119:18	125:22	116:22
55:10 60:7	44:21 45:8	128:23	heavily (1)	126:3 137:5	127:13
105:14	48:13 51:10	141:24	19:18	hide (1)	hold (4) 8:23
129:12	54:9 57:24	heard (2)	heavy (3)	88:11	62:2 98:25
136:5	62:21 63:16	100:16	16:9 68:12	high (13)	104:23
142:14	64:6 67:5	137:10	97:9	16:11 21:19	holding (1)
harmful (11)	72:25 74:18	hearing (55)	heavy-duty...	39:2,6,17	100:7
4:1,6 6:10	74:24 90:13	1:4 2:3,10	4:3,4 61:23	44:16 85:4	hole (1)
67:5,8	94:7 98:5,7	2:11,25 3:6	63:15 71:23	93:5 100:11	42:11
74:10 76:10	98:16	3:9,15,22	74:4	130:24	home (10)
118:17	104:25	7:8,16,21	held (2)	132:14,15	31:5 34:17
123:17	108:22,24	7:24 8:7,15	10:24 11:1	135:9	52:3 67:22
133:6 136:4	109:2,15,20	8:15,18,23	Hell (1) 21:15	higher (6)	68:15 85:21
harming (3)	110:14	9:6,10,11	hello (14)	16:24 39:3	116:23
36:25 54:23	112:8,21	10:2,15,20	20:19 29:20	60:11 81:13	135:11
126:17	113:17	10:24 11:1	59:7 75:5	121:19	137:19
harms (5)	118:20	11:2,7,10	92:23 93:2	132:20	143:16
44:21 91:3	123:23	11:11 13:13	95:19,19	highest (4)	honest (2)
91:17	128:1 129:6	13:19,24,25	103:7	67:17 94:11	34:2 79:12
132:13,18	129:14	14:5 38:20	112:13	124:19	honor (3)
Harrington...	130:3	77:22 83:15	123:5	137:20	36:3 108:7
138:17	131:13,19	83:19 87:17	125:23	highlight (1)	143:10
Harris (4)	133:19	87:22 88:3	139:7	116:14	hope (4)
67:16,16	134:10	88:4,6	141:24	highly (1)	55:10 56:4
139:19	135:15,23	100:7,14	help (10)	26:1	97:12
141:8	136:6,19,21	147:2,10,14	28:14 65:5	highway (3)	109:19
Harvey (1)	137:16	147:16,22	81:9 85:18	16:6 30:24	hopeful (2)

95:5 98:17	36:2 64:13	120:2	134:6	115:14	included (2)
horsepowe...	107:15	ICE (6)	137:15	117:11,16	85:1 134:5
25:4 52:15	humanity's...	33:16 34:6	impacted (2)	importantl...	includes (2)
hospital (1)	106:5	34:20 119:8	64:24 136:8	71:14 79:20	45:6 57:17
6:11	humans (1)	119:12,14	impacting ...	96:5	including (...)
hospitalist ...	29:10	ICEs (1)	71:25	impose (2)	6:18 7:6
123:15	Hund (3)	121:20	impacts (22)	63:20	21:22 41:14
hospitaliza...	92:14,20	ICF (4) 2:8	6:16 16:17	121:17	54:10 63:6
124:3	99:21	3:14 8:25	40:16 44:21	impossibili...	66:3 67:23
hospitalize...	hundred (1)	88:1	54:9 57:7	22:14	67:25 77:6
133:16	26:15	icon (2) 2:13	62:10,21	improve (10)	79:6 80:17
host (15)	hundreds (1)	88:8	67:5,15	33:1 37:4	84:17 108:9
13:15 35:13	101:13	ID (4) 12:11	71:8 72:4	40:8 46:24	113:23
83:23 86:22	Hurricane ...	13:20 14:17	74:11 78:12	48:12 94:16	142:13
99:25 115:4	67:21	89:1	90:13 98:7	108:23	144:8
118:2	hurricanes ...	idea (1)	105:11	111:25	inclusion (1)
122:24	65:4,14	126:13	129:14,16	129:19	146:4
125:16	67:19 85:14	III (1) 1:5	131:22	138:8	income (9)
139:1	107:8	IJA (2) 42:8	134:1	improved (3)	31:15,15
144:20	hurt (2) 35:1	42:22	135:23	27:17 39:10	60:9 75:15
145:3	61:6	Illinois (1)	impairing (1)	94:14	94:10 98:6
146:14,22	husband (1)	126:4	90:22	improveme...	121:23
147:7	56:18	illness (2)	impassione...	31:6	136:7
hosting (4)	Hutchinso...	16:19 31:18	21:18	improveme...	137:15
29:23 32:11	108:12	illnesses (2)	imperative ...	6:1 118:25	incorporat...
137:8	hybrid (8)	60:13	21:20 48:9	119:8,24	79:9 80:16
138:11	52:14 76:11	105:16	50:9 52:24	improving ...	incorporat...
hour (2) 9:21	84:9 85:16	illustrious (...)	imperial (1)	25:24 63:16	78:21
133:4	86:3 113:10	103:19	95:9	inaccuratel...	increase (14)
hours (1)	145:17,24	imagine (1)	implement ...	33:24	7:2 25:4
96:20	hybrids (7)	134:2	79:3	inaction (2)	49:4,23
house (3)	84:17,20,21	immediatel...	implement...	28:25	55:18 58:12
108:20	85:5,18,20	14:10 60:4	34:12	109:14	60:23 71:11
123:25	146:4	64:16,16,24	implementi...	inadequate...	96:14
124:10	hydrocarb...	94:3	66:1 112:20	70:21	107:18,21
Houston (4)	6:6	imminently...	implement...	incentives (...)	116:14
27:22 66:20	hydrogen (6)	76:16	17:13	42:8 111:18	124:22
67:15 68:18	19:24 33:4	impact (18)	implore (1)	114:8	143:23
Hover (1)	101:24	14:1 19:25	82:18	119:16	increased (8)
13:8	102:2,24	23:7 25:21	importance...	incentivize ...	31:17 54:10
Huang (4)	111:20	26:19 30:25	104:16	122:4	57:24
47:21,22	Hyundai (1)	34:9 63:16	important ...	incentivize...	105:15
48:1,2	57:9	65:22 71:22	3:17 21:17	42:12	116:12
huge (1)	_____	90:9 113:24	37:3 66:24	include (7)	121:18
93:24	I	116:15	67:2 74:10	11:14 19:23	125:4 140:1
human (2)	I-95 (2) 73:6	118:19	77:21 84:18	30:21 70:11	increases (2)
64:11 65:17	73:7	121:13	91:6 94:16	83:20 119:1	52:8 119:2
humanity (3)	ICCT (1)	131:16	99:6 114:18	130:17	increasing ...

54:23 66:10	113:24	inputs (1)	117:15	IRA (3) 42:9	38:7 108:1
increasingl...	120:3 141:4	23:10	123:14	42:22 77:7	108:3,4
49:13	informally ...	Insanity (1)	Internatio...	irreversible...	Jim (2) 110:3
index (1)	8:16	52:12	48:23	126:19	110:5
60:4	informatio...	insects (1)	internet (1)	IRS (1) 50:17	Joaquin (1)
indicate (1)	11:15,16,17	51:10	13:23	Island (2)	90:6
147:6	11:17,18	inside (1)	interpreter...	24:1 108:6	job (11)
indigenous...	12:13 13:17	108:14	88:18	issue (3)	20:13 27:23
105:12	13:21 37:22	inspires (1)	interruptio...	51:24 97:9	31:24 50:5
indirectly (1)	81:20 82:21	29:24	70:25	100:19	55:14 78:13
25:20	informed (2)	install (1)	intersectio...	issues (11)	85:7 116:23
individual ...	71:20	124:9	38:13 72:24	23:4 52:8	136:20
13:25 18:24	129:10	instance (1)	interstate (4)	59:22 70:19	141:10
74:16 84:8	infrastruct...	90:24	30:24 127:8	82:24 85:19	143:20
industrial (1)	4:19 18:13	instatemen...	127:12	90:7 110:23	jobs (6)
51:20	33:8,17	40:5	131:4	116:11	51:21 52:1
industries (1)	40:13 49:21	instruction...	interstates ...	117:8 126:6	80:4 85:7
126:17	49:24 50:2	128:18	60:21	items (1)	100:13
industry (12)	50:4,21	insuring (1)	intimately ...	36:13	117:2
5:17 27:24	70:22 71:7	20:2	90:8		John (3)
29:4 49:6	76:24 79:17	intellectual...	invested (1)	J	52:14
78:3,4 86:2	85:23	34:2	50:21	Jack (3)	144:17,19
109:12	inhaler (3)	intend (1)	investing (2)	80:24,25	join (1) 87:13
114:16	108:17,18	7:14	40:13 144:5	81:1	joined (6)
116:23	133:9	intended (1)	investment...	jaded (1)	37:23 92:16
117:4,4	inhalers (1)	7:24	78:14 92:6	93:15	114:24,25
inefficiency...	137:21	intensity (2)	investment...	Jeff (1) 27:6	125:14
112:8	inheriting (...)	101:20,24	4:18 7:1	Jefferson (2)	138:18
inefficient (...)	59:16	intensive (1)	18:13 19:8	130:2,20	Joseph (1)
111:10	initially (2)	116:4	20:12 42:24	Jeffrey (2)	103:20
inequitable...	58:11	intentioned...	50:5 76:17	27:3,5	Josh (3)
29:4	143:22	21:13,18	76:18,22	Jennifer (7)	137:3,5,6
inequity (1)	initiative (1)	intentions (...)	78:7 120:6	2:7,22	July (4) 8:10
40:15	59:14	21:15	investors (1)	10:18,19	73:15 86:13
inevitable (1)	injustice (2)	interest (1)	99:7	87:7 88:1	148:5
92:10	133:20,21	70:4	invitation (1)	147:19	justice (6)
inevitably (...)	injustices (2)	interested (2)	12:21	jeopardize ...	31:12 77:25
64:11	136:15	7:16 149:13	invited (1)	35:2	82:23
infectious (1)	143:14	interests (1)	130:4	Jeremiah (1)	104:19
16:20	innovation ...	116:10	Iowa (6)	55:8	105:10
inflates (1)	26:4,21	intergover...	50:23 51:5	Jersey (4)	109:1
33:24	27:18 33:11	105:25	51:13,17,24	1:21 27:20	
inflating (1)	78:2 100:23	internal (10)	52:17	112:18	K
79:14	innovative ...	25:24 26:12	Iowa's (1)	149:23	Kalina (3)
Inflation (8)	32:25 122:5	76:10 79:7	50:20	JerseyShor...	115:6,7,8
4:19 76:23	input (4) 7:5	82:18	IPCC (2)	1:19	Kathy (3)
79:16 92:7	7:9 43:11	110:25	106:10	Jessica (6)	117:24
107:19	120:23	116:1,25	107:15	37:25 38:6	123:1,3

Katrina (1)	62:8 65:2	135:22	let's (4) 26:22	94:19 98:3	23:25 123:4
65:4	65:24 73:19	launched (1)	44:7 56:3	104:9	123:5,9,10
keep (6) 9:2	73:22 81:21	76:24	97:12	118:16	Lindsey (3)
46:18 78:17	82:20,20	Laurel (3)	level (9) 31:9	132:12	14:25 15:3
94:22	93:8,19	100:3,5,8	40:8 47:10	133:19	15:5
107:17	95:1 126:20	Lauth (4)	73:21 76:15	134:9	line (5) 9:1
123:22	127:12,17	29:16,17,20	85:4 98:15	136:23	31:21 80:9
keeping (1)	127:22	29:21	107:7	139:15	144:24
35:24	128:7	law (4) 4:19	132:24	140:11	146:11
Keith (3)	133:11	76:24 79:17	levels (9)	141:7	lining (1)
50:15,16,17	145:15	112:23	19:9 39:7	light-duty (...)	136:14
kept (1) 9:10	knowing (2)	lay (1) 140:1	46:17 68:25	1:11 2:6,18	linked (3)
key (2) 78:2	60:6 74:14	LCV (1)	76:6 105:5	3:21 7:12	36:8 37:1
105:10	Kyle (4)	139:12	132:15,20	16:24,25	54:13
KIA (1) 57:8	141:22,23	Le (4) 59:2,3	140:12	17:2,5 41:6	liquid (3)
kid (3)	142:2,4	59:7,8	leverage (2)	42:2,7	100:11
108:13	L	lead (12)	79:18 80:7	48:22 49:20	101:24
109:8,23	La (1) 81:2	6:11 29:25	License (1)	60:20 74:4	110:16
kids (10)	labor (7)	57:24 64:11	149:22	75:24 87:19	list (4) 9:18
28:23	38:17 51:21	72:2 94:13	lies (1) 90:4	94:2 98:12	12:14 14:11
133:12	77:18 78:1	115:21	life (17)	104:1 113:6	35:7
134:2,6	78:7 80:2	124:22	26:16 27:14	113:16	listed (1)
137:23,23	80:14	125:2,2,3	31:7,20	114:1	9:19
142:15,21	lack (1) 34:17	143:2	36:10 52:2	129:23	listen (1)
143:16	ladies (3)	leadership ...	77:11 91:5	140:13	13:24
144:8	29:14 37:15	76:5	93:22 95:11	147:25	listening (4)
kill (1) 143:4	148:11	leading (5)	103:9	limbs (1)	3:11 29:11
killed (1)	lake (4) 63:2	31:17 98:19	109:16,17	103:23	40:19
126:15	63:7,7,12	105:15	123:16	limit (9) 8:21	100:13
killling (2)	land (1)	121:18	128:8	8:24 12:7	literally (1)
52:19 60:15	126:6	143:5	129:11	14:13 30:6	60:14
Killmer (2)	landfills (1)	League (1)	142:19	58:6 88:16	little (10)
105:21,22	36:13	139:11	lifecycle (5)	88:21	26:8 37:17
Kilmer (1)	large (5) 12:5	leap (2)	21:22 23:9	123:22	37:19 57:14
105:20	34:9 88:19	106:19	23:13 48:24	limiting (2)	57:14 71:1
Kim (10)	97:10 98:23	138:2	117:10	14:3 36:11	83:14 85:9
24:19,21,22	largely (1)	learned (2)	light (36)	limits (13)	127:18
53:5,5,8,11	74:15	129:16	3:13,18,24	8:19 38:23	131:1
53:13,16,16	larger (4)	130:5	4:11 5:20	56:1 57:4	live (33) 2:11
kindergart...	42:13	leave (2)	6:4 7:3 15:8	61:22 63:14	2:14 16:5
56:21	119:17,17	108:20	15:12 18:1	106:13	16:19 26:13
knew (1)	140:18	123:25	42:13 43:16	138:13	29:7 35:19
27:24	largest (5)	left (2) 102:3	44:9 45:3,6	139:15	43:14 44:6
know (26)	48:6 75:10	102:6	45:23 46:16	140:20	45:18 47:13
12:16 16:11	90:25 91:18	legally (1)	58:4 66:22	141:12,16	53:20 54:13
27:13 30:18	143:9	70:2	70:8 73:1	142:11	57:5 66:19
30:24 31:4	lasting (1)	legislation ...	90:1 91:8	Linda (8)	67:17 68:21
40:16 55:8		43:3	91:20 92:2	23:18,22,24	68:24 88:6

88:8 95:24	65:3 81:6	134:24	6:17 28:1	makers (15)	47:2 55:2
97:3,7	100:12	lose (2) 25:16	37:1 48:14	25:16 35:3	57:8 58:16
103:21	located (5)	52:20	55:12 60:11	42:12 49:9	61:24 62:3
105:5	16:14 24:23	losing (1)	73:16 74:2	79:11,25	98:23 99:7
121:12	38:18 92:17	52:6	105:3	80:6 84:19	119:9
127:7,20	138:19	loss (3) 51:5	131:16	98:18,25	121:13,18
129:17	locations (1)	51:15 78:13	132:17	109:20	122:5
130:17	49:24	losses (1)	lungs (3)	119:17	140:24
132:13	lock (1) 42:17	135:19	16:9 54:5,6	120:10,13	144:3
133:23	locked (1)	lost (2) 6:13	Lyme (1)	120:15	manufactu...
143:9	101:13	48:18	16:19	making (16)	79:1
liveable (1)	lodging (1)	lot (4) 24:15	Lyn (2) 1:14	7:10,25 8:5	manufactu...
35:24	65:10	68:20 85:3	149:22	9:8 10:6	18:22 23:3
lived (5)	logged (1)	108:14		29:3 41:7	23:4 70:15
27:21 62:23	118:3	lots (1) 60:19	M	63:14 71:5	76:25 77:4
90:3 130:12	logistics (2)	love (3) 57:16	M-E-N-G-I...	71:21 79:7	78:9 79:6
131:1	10:19 11:10	57:16	38:8	80:18 91:20	80:4 85:1
livelihood (1)	long (21) 5:2	127:19	M-Y-E-R-...	104:3 140:3	100:11
26:1	33:15 37:8	loved (1)	43:14	140:18	116:16
lives (13)	40:14 51:25	28:10	Magnuson ...	man (1) 65:9	manure (3)
28:24 46:5	60:7 63:20	lovely (1)	24:23 25:3	manage (1)	101:25
47:13 63:17	73:4 84:24	127:18	MAHON (1)	50:19	102:2,5
74:23 75:14	85:6,8,25	low (14)	27:5	Manageme...	map (1)
90:16	86:5 94:17	19:22 26:5	main (1)	112:16	82:11
108:23	94:18 104:8	31:15 44:19	53:21	manager (2)	Marcus (4)
125:4	108:5	46:22 60:9	Maine (1)	38:9 89:20	56:9,10,13
126:25	117:13	75:15 94:10	105:23	mandate (3)	56:14
127:1	128:5	98:6 105:12	mainstrea...	16:23	marginal (1)
129:17	135:22	121:23	33:13	100:22	51:7
144:7	145:16	136:7	maintain (4)	127:25	Mark (5)
livestock (1)	long-lastin...	137:15	19:14 42:6	mandated ...	89:13,14,15
51:12	113:12	145:25	55:5 87:12	102:15	89:18,19
living (15)	long-standi...	lower (14)	maintenan...	mandates (1)	market (15)
30:23 31:13	98:11	4:23 6:11	6:22	102:19	4:16 19:1
46:4 53:25	longer (5)	6:21,22	major (19)	mandating...	26:3 42:9
54:2,20	29:7 40:5,5	31:15,21	4:4 15:19	84:11	42:20,20
65:6 73:18	61:4 125:4	39:8 47:6	30:21,24	mankind (1)	45:5 49:15
91:14 95:7	look (5) 7:8	49:2 66:9	35:2 39:12	103:25	51:2 70:3
95:11	31:5 43:1	69:21 80:1	44:14 52:19	manufactu...	99:9 113:13
105:23	97:6 138:3	136:17	68:22 70:16	28:16	114:8,13,17
108:7 109:9	looking (3)	138:8	71:12 80:12	manufactu...	markets (1)
132:7	23:8 31:23	lowers (1)	98:22 107:3	24:25	94:14
LLC (1) 1:19	136:19	51:15	107:5,22	manufactu...	marks (1)
loaded (1)	loop (1)	lunch (6)	110:23	76:4,16	147:22
70:17	42:11	9:21 11:4	127:24	manufactu...	marshall (1)
loan (1)	Lord (1) 55:9	83:12 86:17	143:17	5:22 7:7	93:23
85:12	Los (3) 27:12	87:6,11	majority (2)	18:21 32:21	Maryland (...)
local (4) 7:7	27:21	lung (11)	22:19 96:20	46:16,21	15:6,19,21

16:6,11,22	21:22 22:9	139:16	139:13	Michigan (4)	mind (3)
17:1,9	22:18 26:2	141:7	memorable...	105:24	55:12 78:17
Marylande...	79:13,15,20	147:25	129:25	115:9 143:9	134:4
16:4	102:1 106:4	meet (25)	Memorand...	143:13	minds (1)
Mason (2)	measured (1)	5:15,17,22	80:13	Michigan's...	54:5
129:7	101:20	18:15 32:22	memories (1)	143:14	mine (1)
131:20	measures (2)	33:12 34:24	135:1	microphon...	25:23
mass (2) 28:8	16:4 69:25	37:6 47:4	Mendelson...	12:8 88:22	mineral (1)
96:8	meat (1)	55:2 57:10	14:25 15:3	microphon...	70:14
Massachus...	51:20	58:17 61:2	15:5	11:22	minerals (1)
64:6	mechanical...	61:25 70:7	Mengistab ...	mid (1) 77:8	86:5
massive (4)	115:8	78:14 84:20	37:25 38:6	middle (3)	minimized ...
31:19 34:8	medical (8)	91:23 94:21	38:8	94:10 130:3	116:8
52:13 111:8	11:17	104:6	mention (1)	135:2	minimum (1)
master (1)	123:12	113:19	110:22	Middletow...	118:23
64:7	125:3 130:2	120:13	mentioned ...	73:14	Minister (1)
material (2)	130:11,20	144:4	130:22	Mike (6) 2:18	105:23
52:6 116:16	131:18	145:20,25	merits (1)	2:20 3:4	minority (1)
materials (6)	143:1	meeting (15)	100:17	10:21 11:2	39:8
8:2 18:5	medicated ...	2:9,17 3:6	Mesa (1)	148:10	minute (2)
23:4 85:24	108:17	11:8 13:15	81:2	mile (2) 34:9	12:7 88:20
107:13	medicine (1)	15:14 37:23	mess (2)	53:23	minutes (27)
116:20	123:14	83:23 86:22	111:12,13	mileage (1)	8:22 9:2
maternity (1)	medium (6)	87:9 115:3	message (13)	27:17	11:24 14:14
38:17	1:11 44:9	118:2	13:15 35:14	miles (8)	27:1 29:19
matter (4)	48:25 74:4	122:23	83:22 86:22	68:18 73:7	34:21,22
6:1,7 44:5	94:2 98:12	125:16	99:25 115:3	84:22 91:2	47:25 53:15
75:12	medium-d...	146:14	118:3	96:21	56:12 59:6
matters (1)	2:6 3:13,18	meets (1)	125:16	111:23	83:8 88:16
94:24	3:21,24	101:6	144:21	112:5	89:17 93:1
max (1)	5:23 6:5 7:3	megajoule ...	145:3	127:11	95:22
90:19	7:12 15:8	101:21,23	146:14,23	Miller (3)	105:18
maximize (1)	15:13 17:11	102:1,5	147:7	112:12,13	111:4 121:9
64:18	18:1 41:7	MEMA (3)	messages (1)	112:14	123:8
MC (2) 27:5	43:17 45:3	17:22,23	87:3	million (19)	125:25
103:6	45:7,23	20:5	method (1)	30:1 31:12	128:12
McCarthy ...	46:16 58:4	member (5)	119:11	32:11 44:2	129:2 139:6
110:4,5	66:22 73:2	35:20 41:17	methodolo...	48:18,18	142:1 147:1
McClain (2)	75:25 87:20	43:15 81:5	22:1	50:21 51:24	mispronou...
103:5,13	90:1 91:8	113:1	methods (2)	51:25 52:11	14:22 89:9
McMahon ...	91:20 92:2	members (...)	9:15 117:9	54:20 68:21	missing (1)
27:4,6	98:3 113:6	7:23 10:13	Metro (2)	68:24 73:14	99:20
mean (3)	118:16	17:24 20:5	38:18 39:17	75:8 77:4	mission (2)
64:16 72:4	129:23	30:1 38:19	Meyaard-S...	89:23 108:8	38:14 129:9
122:12	132:12	41:19 69:14	141:22,23	120:8	mistake (1)
meaningful...	133:19	75:8 89:23	142:2,4	millions (2)	26:23
4:20	134:9	108:8	Michael (3)	19:11	mitigate (2)
means (9)	136:24	112:19	103:5,6,13	107:10	44:22 65:22

mitigating ...	43:15 66:19	109:17,19	muted (1)	29:21 31:9	34:24 37:7
46:8	132:6,8,9	motivation...	11:22	38:12 41:9	40:4,24
mix (2) 86:7	Mona (7)	140:20	Myers (3)	72:23 77:18	47:11 55:16
115:20	125:13,14	motor (4)	43:7,8,13	81:4,14,25	55:17 58:11
mobile (4)	128:14,16	22:22 96:15		89:20 90:8	58:13,14,22
21:3 22:6	128:25	127:23	N	90:24 91:4	58:22 62:18
22:15 90:25	129:3,4	145:16	name (58)	91:11	66:9 67:5
mobility (1)	money (4)	mountain (1)	2:7 13:3,5,8	103:13,14	71:1 79:11
96:9	25:19	63:1	13:10 14:23	103:17,18	81:18 82:1
mobilizatio...	109:12	Mousa (4)	15:4 20:20	130:25	82:7,14,16
97:25	110:21	117:23	24:22 27:5	137:7	82:17 84:20
model (23)	138:1	121:3,6,10	29:21 32:17	nationally (...)	85:20 88:21
1:10 2:5	month (4)	mouse (1)	35:11,18	49:16	94:17 96:7
3:18,20	73:12,15	13:8	38:7,8	nationwide...	96:11 97:4
4:11 7:11	124:1,4	move (19)	43:13 45:18	25:1 39:18	97:11 99:11
17:3 33:13	months (2)	14:10 22:15	48:1 50:16	74:3,7 76:6	102:22,24
37:9 39:23	126:13	29:1,15	54:16 56:14	natural (5)	104:7,20
58:16 63:22	142:7	45:14 55:1	59:7 61:18	33:5 48:3	106:7
66:23 71:21	Moorhead ...	81:10 82:16	64:4 66:18	51:9,12	107:16
77:7 87:19	100:4,5,8	82:17,19,22	72:17 75:5	101:15	110:13,23
94:19 104:9	moral (2)	83:3 100:2	77:16 81:1	naturally (1)	111:14,24
119:13	104:23	107:5	84:7 87:25	51:16	112:4 138:2
129:24	136:14	111:22	89:9,19	nature (1)	140:10
139:22,25	Moran (1)	115:5	92:16 95:23	36:1	143:23,24
147:24	3:8	126:25	97:22 99:23	NCPA (1)	144:4
modeling (1)	morning (18)	131:25	100:7	91:24	145:22
71:15	2:1,22	144:16	105:22	near (4)	needed (12)
models (1)	14:24 17:20	moved (3)	108:3	33:18 49:12	19:10,13
34:14	24:21 35:9	27:22 28:7	112:13	143:15,16	55:22 57:6
modernity ...	35:17 38:7	38:3	114:24	nearby (1)	85:5,15
95:9	40:24 41:5	moves (1)	115:1,8	90:7	98:15
mom (4)	43:8 45:17	114:15	118:4,12	nearer (1)	107:13
108:11,20	64:4 66:12	moving (11)	122:22	39:2	108:14
109:8,22	80:25 81:1	28:9 35:15	123:10	nearly (1)	111:7 112:3
mom's (2)	81:18	40:10,12	125:15	100:12	124:11
67:22	145:11	54:19 61:8	129:4 132:5	necessary (3)	needs (15)
109:15	mortality (1)	64:1 69:1	134:18	78:25	18:15 20:10
moment (4)	6:19	120:1 123:1	137:6	110:16	25:13 32:5
108:22	mother (4)	139:20	138:18	145:20	55:14 58:23
128:21	27:22 68:9	multi-gene...	139:9 142:4	necessity (1)	93:7 100:19
130:9	109:13	68:15	144:20	59:18	101:6
147:20	123:12	multi-pollu...	nation (4)	need (62)	102:15,16
moments (1)	mother's (2)	1:9 2:4 3:20	81:23 82:7	8:23 12:4,8	106:3
146:18	93:21	7:10 63:21	90:6 104:5	13:4 20:11	107:12
momentum...	108:15	73:1 75:21	nation's (1)	21:7 24:4	110:20
42:6,21	mothers (1)	87:18	114:15	24:13 28:20	113:18
139:24	109:23	118:15	national (22)	30:10,11	negative (4)
moms (5)	motivates (2)	147:24	20:10,14	31:8 32:8	36:7 72:4

101:25	98:20	90:19 97:24	71:25 77:21	47:3,5	operating (3)
102:10	104:12	130:6,13	88:19 89:3	office (4)	4:23 6:21
neighbor (4)	106:15	133:16	104:4	2:19,24 3:5	41:10
56:19 57:16	107:11	noon (1) 9:22	107:21	10:16	operation (1)
115:15	108:6,9	norm (1)	113:22	officer (5) 3:6	102:11
123:24	109:4	66:6	116:14,18	3:8 8:18	operations ...
neighborh...	112:18,18	north (3)	116:22	11:7 149:1	102:3
136:11	112:18	65:11	117:3	official (4)	opinions (1)
neighbors (1)	113:25	103:21	143:10	7:20 9:9	20:25
31:2	114:1	143:17	numbers (1)	10:6,11	opportunit...
neighbors' ...	139:17	Northeast (1)	98:19	offshoring ...	28:14
57:18	140:11,13	112:15	numerous (...)	80:1	opportunit...
neither (3)	141:3	Northeaste...	43:21 62:23	oil (7) 27:24	7:17 8:8 9:4
22:22 149:9	149:23	64:9	92:3	79:8 104:3	9:12 15:4
149:11	news (3)	northern (3)	nurse (5)	111:1,5,16	20:20 36:14
NESCAU...	54:21	62:23 63:5	38:12,16	138:1	38:21 41:5
112:16,16	126:21	100:10	72:20 74:9	okay (15)	43:11 47:17
net (3) 5:2	144:2	Norway's (1)	74:13	13:11 35:15	53:18 56:14
33:21 106:4	niece (3)	97:13	nurses (6)	37:24 38:3	61:18 69:12
network (6)	67:23 68:3	Notary (1)	38:10 39:19	38:6 53:8	72:18 74:24
25:1 30:2	68:6	149:23	40:3,16	53:13 72:17	75:6 80:19
53:18 56:17	night (3)	note (7) 9:17	72:22 131:7	93:2 95:17	89:19 99:14
139:14	43:25 135:2	11:21 13:18	nursing (1)	95:23 99:19	103:7
142:6	135:5	14:7 23:3	72:23	115:7 118:5	107:23
neutral (3)	nine (15)	85:5 122:23	NY (1) 28:22	129:3	110:6
22:3 26:10	23:19 35:10	noted (2)		old (7) 26:15	115:10
46:19	83:24 86:23	11:2 95:6	O	29:4 59:8	118:11
neutrality (1)	92:19 100:1	notice (3)	oats (1) 51:8	96:12 133:8	120:22
33:19	122:25	8:12 9:16	obligation ...	142:7,7	122:16
Nevada (1)	125:17	148:8	136:15	older (2) 67:7	125:7 129:4
89:20	138:21	noticed (2)	obligations...	108:15	132:4
never (3)	143:6	54:1 100:15	105:2	Olechiw (6)	134:18
24:2 47:9	144:22	notificatio...	observed (1)	2:18,21 3:4	136:25
124:11	145:4	12:18	100:22	87:7,23	139:8
new (44) 1:21	146:15,24	NOx (9) 4:3	obsolete (1)	147:17	141:17
3:17 5:19	147:9	15:20,20	29:4	on-line (2)	142:3 148:4
5:23 16:1	nitrogen (6)	16:4 75:11	obvious (1)	12:2 50:2	opposed (1)
19:14 20:1	6:6 15:22	76:13 82:5	61:9	once (6) 9:25	85:17
20:3 27:7	132:23	84:12,16	occurred (1)	18:24 28:3	opposite (1)
27:10 28:7	137:14	noxious (1)	44:25	69:3 76:4	142:25
34:5 35:1	142:13,24	124:21	occurrence...	136:16	optimal (2)
45:23 46:11	NMOG (2)	NPCA (1)	67:17	one-third (2)	116:8,9
47:4 51:6	84:12,16	89:22	occurring (1)	44:6 77:5	optimistic (...)
52:25 62:15	noise (1)	number (20)	48:10	ones (1)	70:16 72:2
65:12 73:1	127:7	8:22 9:9	OEMs (4)	23:11	optimize (1)
73:18 75:23	noisy (1) 16:7	12:5 13:18	25:8 32:22	open (5) 9:10	131:8
75:25 76:2	non (8) 15:24	13:19,24	34:13 120:6	13:9 87:12	option (5)
77:4,6	41:9,11	44:1 51:17	offer (3) 33:6	127:7,19	33:15 51:3

52:23	outreach (2)	P	53:4 84:2,4	59:25 74:22	pasture (1)
145:23	56:16	p.m (12) 9:23	118:7 121:4	133:1,4	51:8
146:5	103:13	9:23 10:25	125:21	particular ...	patents (1)
options (5)	outside (3)	11:1,2,5,5	128:15,17	25:22 63:18	54:16
34:17,18	16:8 70:9	83:13 87:9	145:9	84:11	Paterson (2)
42:1 111:24	127:18	87:14 148:6	panels (1)	particularl...	97:22
140:23	outstandin...	148:16	12:15	44:20 70:8	145:12
oral (2) 7:17	103:9	pace (5)	parent (1)	74:24 84:10	path (11)
7:19	overall (4)	33:12 55:18	46:3	121:22	26:12 42:5
orally (1)	39:10 42:14	58:12 91:25	parental (1)	122:15	52:13,17
14:15	122:12	143:23	74:12	133:10	76:1 99:11
Orcas (1)	124:20	packing (1)	parents (4)	particulate...	104:11
24:1	overestima...	51:20	54:14,20	5:25 6:6,16	109:4,18
order (13)	18:7	pain (1)	67:10 131:7	44:5 75:12	126:19
9:18 14:11	overestima...	68:11	Paris (4)	76:14	139:16
14:19 36:16	72:6	paired (1)	15:16 37:7	particulate...	pathogens ...
37:6 50:8	overhaul (1)	76:3	94:21 104:7	28:1 43:22	51:10
59:19 84:11	107:11	pandemic (1)	Park (1)	51:16 90:20	pathway (4)
88:13 89:5	Overlooke...	135:21	81:25	parties (2)	5:17 15:9
120:16	25:21	pandemics ...	parking (1)	7:17 149:10	72:9 76:5
140:8 144:7	overly (1)	51:11	68:20	partly (1)	pathways (1)
Oregon (1)	72:1	panel (37)	parks (7)	28:7	120:14
45:19	overpass (1)	7:23 14:25	81:4 89:21	partner (2)	patients (1)
organizatio...	135:12	17:18 27:3	90:8,24	36:7 69:15	123:16
38:12 40:2	overpriced ...	29:15 43:7	91:2,4,11	partnering ...	Patterson (4)
41:10,18	111:10	45:15 47:20	Parkway (1)	69:22	97:20,21
72:24 94:7	oversize (1)	50:15 56:9	108:12	partners (2)	145:8,11
97:24 129:9	91:13	61:16 64:1	part (11) 8:4	78:1 139:14	Paul (3)
organizatio...	overwhelm...	66:15 69:8	18:21 41:21	partnershi...	112:12,13
41:13 77:19	39:7	72:15 77:15	52:2 65:3	77:18	112:14
organizer (3)	owners (1)	80:24 83:9	66:11 77:24	103:15	pause (4)
108:4 126:4	98:24	83:10,10,16	83:19	parts (3)	70:25 86:24
134:20	oxide (3)	86:19 89:10	101:17	32:21	146:17,25
Orleans (1)	132:23	95:17 99:20	147:2,10	116:25	pave (1)
65:12	137:14	100:3 103:4	partial (1)	117:1	113:4
outcomes (3)	142:14	105:25	19:11	passed (2)	paved (1)
98:5 118:21	oxides (2) 6:6	115:6	participant...	31:6 39:24	21:15
143:3	142:24	117:25	13:7	passenger (8)	pay (1)
outdated (1)	ozone (11)	121:2	participant...	4:11 5:19	111:11
22:1	15:21,25	125:12,20	12:3 125:8	6:4 36:24	payer (1)
outlet (1)	39:17 73:19	132:1	participate...	44:9 64:21	25:19
112:1	73:20,21	144:16,16	3:2	105:7	paying (2)
outlined (1)	90:20	144:17	participati...	106:15	100:12
119:24	132:25	panelist (15)	14:4 86:19	passionate ...	117:2
outputs (1)	133:3	12:19 15:2	100:18	21:12	pedestrians...
23:10	142:24	23:22 38:2	participati...	paste (1) 89:2	119:19
outrageous...	143:2	38:4 40:25	148:12	pastor (2)	peer (1) 93:9
85:14			particle (4)	142:6,18	penalized (1)

19:5	98:19 104:2	78:23	128:7	139:2,5	86:22 89:12
Pendergast...	104:3,10,11	petroleum ...	picture (2)	141:19,25	89:14 92:18
24:20,21,22	106:15,19	101:11	23:8 117:12	144:13	99:22,24
Pennsylvan...	109:3	102:17,20	piece (1)	146:7	114:24
35:19,21	113:16	ph (2) 61:16	109:8	148:10	115:3
53:20	114:1 120:5	61:19	Piggott (76)	Pittsburgh ...	117:22,24
people (37)	124:21	Ph.D (1)	2:1,7 10:21	59:22,23	118:1
16:11 25:22	135:25	20:23	17:17 20:15	60:19	122:20
29:24 31:12	136:3	phase (1)	23:15 24:17	place (2)	123:2
31:15,23	137:12,13	71:5	26:25 29:12	141:3 149:6	125:14,15
38:14 39:13	140:10,12	phased (2)	29:18 32:13	places (8)	138:18,20
39:13 44:19	142:13	45:24	35:5 37:13	44:7 59:23	144:18
44:20 54:10	143:6	102:18	40:20 43:4	68:24 81:24	145:3
61:11 65:1	percentage...	PHEV (2)	45:12 47:18	82:1,6,7	146:13,19
65:6 67:6	16:25 60:22	145:13,14	47:24 50:12	114:9	play (2)
67:23,25	Perfect (2)	Philadelphi...	53:2,10,14	plagued (1)	91:13
68:21,24	125:19	35:19 130:5	56:6,11	59:22	117:16
73:22,24	139:7	Philip (1)	58:25 59:5	plan (6) 4:5	played (2)
82:14 83:1	performer ...	99:21	61:13 63:24	7:2 9:21	95:9 136:13
83:1 96:7	27:8	Philly (2)	66:13 69:6	11:4 93:23	playing (1)
105:13	period (5)	130:2,24	70:24 72:12	106:12	54:6
109:11	8:9 45:24	Phoenix (2)	75:1 77:12	planet (11)	Plaza (1)
111:25	80:8 99:10	27:7,11	80:21 83:7	29:10 35:24	1:20
129:19	148:5	phone (15)	86:14 87:10	36:11,16	pleas (1)
130:14,17	permanent...	12:2,3,25	87:16,25	43:19 61:6	21:18
132:19	116:23	13:18,19	88:1 89:16	93:12 95:2	please (30)
136:19	permanent...	92:18 99:25	92:12,25	95:4 103:25	9:17 10:10
142:22	94:1	109:11	95:14,21	126:18	10:15 11:14
144:8,9	permit (1)	122:24	97:17 99:17	planet's (1)	11:21,24
peoples (1)	25:8	125:17	103:2	45:9	13:2,18
63:17	person (7)	144:21	105:17	planned (2)	14:7,20
peoples' (2)	8:21 11:9	145:4	107:24	33:21	29:1 35:11
44:8 74:16	14:13 59:16	146:15,23	110:1	102:22	37:16 45:8
percent (51)	88:15	147:8	112:10	planning (3)	63:19 83:3
5:9,10,19	103:22	phones (1)	114:20	58:19,20	83:20 89:6
5:19,23	133:25	13:1	117:19	120:11	92:16 118:1
15:9,11,18	personal (6)	physical (1)	120:24	plans (3)	122:22
17:2,5	20:25 93:10	22:13	121:8	55:8,9,10	123:21
18:10 30:14	108:10	physician (2)	122:17	plant (3)	134:4,10
36:22 44:10	115:17	123:15	123:7	18:22 71:16	138:19
49:2,11,16	129:25	129:5	125:10,24	91:5	144:20
51:4 52:20	135:14	pick (1)	128:11,14	plants (1)	145:7
57:20 60:1	personally ...	91:25	128:19	51:2	146:12,22
62:13 64:14	91:15	picks (1)	129:1	plastic (1)	147:6
68:23 71:11	perspective...	33:10	131:23	65:7	pleased (2)
72:11 75:24	41:20	pickup (3)	134:13	platform (2...	99:2 113:14
81:12 94:20	140:22	36:20	137:1	35:9,13	pledged (1)
96:11 97:13	perspective...	111:23	138:14	40:23 83:22	49:9

62:3,4	poll (1) 93:9	68:17,25	94:8 125:3	141:12	103:10
plug (14)	pollutant (4)	74:11,15,22	population...	142:11	precarious...
76:11 84:9	4:1 21:8	75:14,17	74:25	143:21	126:22
84:17,20,21	81:15	76:7,10	142:22	144:10	prefer (1)
85:5,16,18	145:25	81:6,19,21	porch (1)	post (1)	66:4
85:20 86:3	pollutants (...)	82:3,13,15	124:16	12:12	pregnancie...
113:10	5:1 6:11	89:25 90:7	port (1)	posted (4)	143:6
145:17,24	36:25 62:25	90:15,22	131:3	11:12 13:17	pregnant (1)
146:4	63:4,8	91:3,7	portion (2)	13:20 14:17	44:18
plus (5)	90:19	94:15 97:1	91:1 115:15	postpartu...	premature ...
26:15 44:16	118:18	98:8 104:5	Portland (1)	38:17	6:18 30:22
52:19	124:21,22	104:16	45:18	potential (3)	48:17 54:12
112:18	142:14	105:6	ports (2) 39:3	5:17 35:1	58:1 74:7
124:4	pollute (2)	106:13	49:25	80:12	132:18
PM (4) 76:13	30:20 136:5	112:25	Portugal (3)	potentially ...	137:18
82:4 84:13	polluted (7)	120:21	134:16,17	119:5	143:6
84:16	27:14,25	123:17	134:19	121:19	prematurel...
PM2.5 (2)	59:24 73:24	130:4	positive (1)	poured (1)	26:23
143:4,8	90:5,11	131:10,12	26:19	67:22	prepare (1)
pocket (1)	136:10	131:17	possible (52)	power (13)	127:4
109:10	polluting (5)	132:12,16	24:11 30:3	22:17,25	prerequisit...
pockets (1)	47:6 95:11	132:19,20	30:10 32:6	25:11,15	70:23
138:2	96:23	133:1,2,4,5	36:18 37:8	63:10 71:11	Presbyteri...
point (4)	111:10	133:7,18,21	38:23,25	71:16 85:14	105:23
13:23 74:10	131:12	135:9,13,14	39:22,24	95:9 102:8	present (2)
82:9 118:24	pollution (...)	136:4,8	40:6 42:17	107:12	35:25 96:3
points (2)	4:6 6:8	137:20	45:2 46:1	117:1 127:3	presentatio...
81:17 109:6	15:20,20,22	139:16,17	47:16 48:5	powered (5)	7:17
poised (2)	16:2,4,9,13	139:21	49:17,20	22:19 46:23	presenting ...
49:7 117:5	21:4 30:3,7	140:14	50:9,10	55:5 106:17	74:7
poisoning (1)	30:19 31:14	141:4,7,12	55:15 56:1	106:18	presently (1)
126:18	31:17 32:6	141:16	57:4 61:3,4	powerful (1)	116:2
policies (1)	32:8 36:7,9	142:11,12	61:22 62:11	107:8	presents (1)
17:15	36:22,24	142:23	63:21 66:25	powerlessn...	71:12
policy (10)	37:2 38:24	145:21	69:4 74:19	74:14	preserve (1)
21:22 22:12	39:7,13,21	pollutions (1)	75:21 78:20	practical (4)	82:1
26:9 41:8	40:12 43:12	105:15	94:17	19:23 48:21	preserved (2)
49:8 50:4	44:7 45:2	pond (1)	100:20	100:25	81:22 82:8
76:19 77:17	48:5 54:8	102:6	101:9	119:24	President (6)
78:18	54:12 55:12	poor (7)	102:25	practice (1)	17:22 32:18
118:13	55:23 56:2	60:10 82:14	104:8,21	33:21	72:10
political (3)	57:4,7,23	83:1 108:19	109:7	practiced (1)	103:20
115:22	58:5,7,8	109:15	110:14	123:13	106:21
116:10,18	59:25 60:2	124:1,4	120:19	practices (1)	142:5
politicians ...	60:21 61:23	popular (1)	123:23	136:14	president's...
93:17	62:18,21	66:3	128:5 134:9	practicing ...	104:18
politics (2)	63:9,15	population...	138:13	36:4	presiding (3)
93:11,15	67:3,9	52:10 73:5	139:15,24	pray (1)	3:6,8 8:18

10:14,16	12:19 39:25	46:22	promise (1)	107:22	prosper (1)
35:10 53:7	prioritize (2)	production...	104:18	113:15,21	55:9
83:24 86:23	104:24	18:8 19:9,9	promises (1)	114:18	protect (17)
92:19 100:1	109:20	33:23,24	18:8	116:2,5	31:24 41:22
122:24	priority (1)	51:13 52:21	promising ...	128:3	43:19 45:8
125:17	141:8	77:3 116:13	33:4	129:22	50:22 51:9
138:21	private (9)	121:19	promote (8)	141:15	59:19 67:6
144:22	19:7 45:19	products (2)	15:1 38:1	143:19	74:24 91:10
145:4	51:2 59:9	24:24 32:23	38:14 40:25	148:8	98:15 109:2
146:15,24	61:20 84:8	professiona...	84:2 118:7	proposal's ...	117:7
147:8	92:6 123:11	64:7 115:18	125:21	5:2	120:20
press@epa...	134:19	professor (2)	145:9	proposals (6)	128:1
10:16	probably (2)	27:7 130:1	promoted (3)	47:9 56:23	134:10
pressing (1)	102:21	profit (3)	12:19 121:4	75:22 76:8	136:19
13:1	126:1	41:9,11	128:16	78:22 79:10	protecting ...
pressures (2)	problem (13)	97:24	promotes (1)	proposed (...)	35:23 62:17
68:12 86:1	22:21,24	profound (1)	51:12	1:9 2:4 3:11	67:2 75:12
pretty (1)	24:3,7,15	64:13	prompt (11)	3:19 4:3,12	104:24,25
127:10	44:17 69:2	program (7)	15:1 23:21	5:12,22 6:3	118:17
prevalent (1)	93:13,24	3:13 18:20	27:18 38:1	6:24 7:10	protection ...
63:9	100:24	38:9 89:20	38:1 40:24	7:25 8:5	1:3 2:3,23
prevent (7)	101:11	90:23 91:10	53:6,12	10:6 15:14	110:12
48:9,17	111:3 131:9	111:6	118:7	21:10,25	112:22
62:9 63:11	problems (...)	programs (6)	125:21	22:3 27:18	protections...
129:11,16	16:10 30:9	14:3 19:16	139:3	29:6 33:9	45:3 66:25
131:8	30:22 57:24	25:18 41:10	promptly (1)	33:20 34:6	67:1 74:18
preventing ...	68:4 93:18	112:20	87:14	34:11 38:22	78:7 134:9
51:11	93:20	114:10	promulgat...	41:20 42:1	136:23
previous (3)	132:17,17	progress (5)	43:10	43:16 45:10	protective (...)
23:5 39:11	137:22	40:7 59:14	promulgati...	46:7,12,14	75:20 76:9
121:1	proceeding...	69:18	114:14	46:20 47:1	76:13
previously ...	14:21 89:7	118:14	propel (1)	47:7 54:25	protector (1)
33:21 120:6	149:5	119:6	107:1	58:16 69:13	103:25
130:12	process (4)	prohibited ...	proposal (42)	70:7 71:23	protects (1)
price (2)	8:5 16:23	102:16	3:17,23 4:8	81:8 87:17	61:10
18:23 86:1	79:12 99:16	project (2)	4:15,22 5:7	89:25 98:14	protein (1)
prices (1)	produce (6)	99:6 130:21	5:8 7:5,14	113:8,19	51:13
54:24	18:21 34:25	projected (3)	8:13 9:16	119:25	proud (1)
primarily (1)	98:18	5:8 17:4	10:7,12	120:23	69:15
122:13	111:19	18:12	18:4 21:7	121:15	proven (2)
primary (3)	112:3 120:8	projecting ...	28:22 39:25	140:4 142:9	26:6 33:7
69:20 82:6	produced (5)	99:3,9	45:23 51:6	147:23	provide (36)
112:19	33:22,23	projects (2)	55:13 60:25	proposes (1)	4:13 8:3
primed (1)	110:17,25	5:16,21	72:8 74:21	107:20	9:11 10:6
50:6	111:20	prolonged ...	75:18 76:12	proposing (...)	12:10 14:15
principles (1)	producer (1)	61:5	84:10 86:6	47:15 113:6	19:25 20:7
78:17	52:22	prominent ...	86:12 98:2	proprietary...	20:8,9
prior (2)	producing ...	131:3	98:18 99:3	11:16	25:11 41:6

55:22 57:6	108:23	30:20 31:7	quotes (1)	70:17 114:1	49:16
67:12 69:12	112:21	31:7 37:4	130:6	ramped (3)	reaching (1)
72:19 83:11	118:17	39:10 40:8		101:9 119:4	49:11
83:17 84:3	128:1 129:6	48:13 59:22	R	141:15	reacts (1)
85:2 86:12	130:3 136:6	60:10 62:25	R (1) 103:20	ramping (1)	132:24
86:16,25	137:16	63:3,17	R&D (1)	120:11	read (2) 2:12
88:24 99:14	138:8	69:19 73:22	34:14	range (16)	88:7
99:14	147:16,23	90:10 94:17	race (1)	5:3,6,7,16	ready (11)
120:23	149:23	100:11	26:23	18:17 19:21	34:16 87:5
145:6,10	publicly (1)	108:19	racers (1)	47:5 63:1	87:8,21,22
146:21	11:13	109:16	25:5	78:21 84:22	87:23 88:3
147:2,10,13	published (2)	112:17	Rachel (3)	84:25 85:25	128:24
provided (5)	7:13 10:8	124:1,5	97:20,21,22	86:5 111:23	147:14,15
83:19 86:16	pulling (1)	129:19	racism (2)	112:6 114:8	147:17
144:25	24:8	133:10	40:15	ranked (3)	real (8) 27:11
145:5	pulls (1) 24:5	136:5 138:8	136:12	39:16 63:2	33:6 70:3
146:11	pump (1)	quantificat...	Radiation (...)	73:19	94:12
provides (6)	34:23	117:9	2:20,24 3:5	ranks (1)	100:19,21
4:23 7:16	Puntenner...	quantum (1)	RAHN (1)	59:25	129:15
20:11 25:14	50:15,16,17	106:19	149:22	rapid (5)	131:18
36:2 81:23	purchase (2)	quarter (1)	railcars (1)	42:18 48:20	realistic (1)
providing (4)	34:16 141:3	140:17	52:5	67:11 92:8	72:9
25:25 42:19	purchaser ...	question (1)	rain (1)	114:6	realistically...
42:20 78:4	77:7	129:18	93:21	rapidly (2)	70:18
provisions ...	purchasing...	questions (4)	raise (25)	76:18 107:8	reality (6)
84:15,16,21	18:18	7:24 8:1	23:19 35:11	Rapids (1)	22:9 28:21
113:10	pursue (1)	10:14 14:8	35:12 83:21	105:24	29:8 52:25
proximity (1)	109:17	quick (1)	83:24 86:21	rate (2) 70:17	56:25 92:10
73:6	pursued (1)	63:16	86:24 92:17	122:7	realize (2)
psychiatric...	114:7	quickly (14)	92:19 99:23	rated (1)	50:8 66:7
74:9	pursuing (1)	33:18 38:25	100:1 115:1	111:23	realized (2)
PTSD (1)	115:19	55:25 66:25	118:1	rates (6)	28:4 108:14
67:24	push (3)	82:19 83:3	122:22	31:18 39:3	really (3)
public (41)	79:25 81:10	89:24 91:24	125:17	60:11	96:14 116:4
1:4 2:3,25	94:14	100:19	138:19,21	105:15	123:21
3:15 4:14	pushes (2)	101:9	144:20	130:24	reason (7)
4:20 5:5	58:17 141:1	102:18,25	145:1,7	137:21	69:20 70:17
10:20 14:7	put (4) 15:9	106:6	146:12,16	ravages (1)	78:16 79:4
30:21 31:24	24:13 109:3	121:11	146:22,24	142:23	82:6 96:13
38:19 41:15	141:3	quickness (1)	147:9	raw (4) 18:5	119:19
49:8,24,25	putting (5)	110:21	raised (2)	85:24	reasonable ...
60:18 62:21	19:19 76:1	quiet (1)	134:24	116:15,19	8:19
64:6 66:5	98:2 104:10	110:22	145:9	Rayef (3)	reasons (4)
85:9 87:17	138:1	quite (2)	raising (1)	77:15,16,17	46:12 77:22
88:12 92:6		60:14	147:6	reach (3)	110:15,15
96:10 98:5	Q	131:17	rake (1)	36:17 86:8	rebuilt (1)
98:16 100:7	quality (28)	quote (1)	54:17	106:4	93:23
100:14	26:16 30:8	21:14	ramp (2)	reached (1)	rebuttal (1)

9:12	129:23	33:18	138:7	114:17	37:22
recall (1)	140:10,21	refueled (1)	regulations...	remarkabl...	represent (5)
63:2	146:1	34:20	9:7 14:16	69:18	30:1 93:4
recapture (1)	reduced (5)	refugees (1)	37:21	remedy (1)	100:8
111:6	5:9 6:17	65:13	regulators ...	136:15	106:18
receive (5)	55:21	regarded (1)	69:16 127:2	remember ...	108:8
12:18 15:1	110:13	70:22	regulatory ...	26:24 27:15	representat...
53:6 64:25	119:13	Regardless ...	17:22 20:8	43:24 134:5	10:4 14:8
118:7	reduces (1)	40:7	20:9 22:8	135:10,13	15:6 84:8
received (2)	91:1	region (3)	69:25 80:10	remind (3)	103:16
39:15 64:7	reducing (1...	15:23 16:19	80:17 98:10	8:6 109:7	representin...
recess (3)	6:2 43:20	85:10	99:15	148:2	97:23 129:6
87:5,8,15	46:9 63:14	region's (1)	related (4)	reminder (1)	request (2)
recognize (1)	67:13 75:13	90:17	6:16 51:18	37:15	8:1 145:13
95:8	77:23 91:7	regional (5)	51:19	renaissanc...	requests (1)
recommen...	122:12	81:7 90:23	105:11	77:1	147:13
14:2 146:3	137:25	91:1,10	relationshi...	renewable ...	require (3)
reconsider ...	reduction (...	112:16	29:2	19:24 33:5	92:1 107:10
23:13	4:19 15:11	regions (1)	relative (2)	101:16	114:1
record (4)	20:6,9 21:4	116:21	149:9,11	102:10,22	required (2)
7:20 9:9	30:4 32:6	register (10)	release (3)	102:23	122:6 140:7
14:21 89:7	59:15 69:19	7:13 8:12	71:16	115:13	requireme...
recorded (2)	72:6 76:9	9:16 10:8	101:14	117:15	78:15
11:11 50:24	76:23 78:20	83:18 86:15	106:10	repair (2)	requireme...
recording (2)	79:16 92:7	144:25	reliability (2)	6:23 19:15	17:12 113:9
11:12	107:19	146:20	71:9,14	repeat (1)	research (5)
148:13	113:24	147:5 148:8	reliably (1)	35:3	54:15 64:12
recover (2)	116:23	registered (...	25:3	repeatedly ...	78:7 93:9
68:1 135:19	120:3 122:8	12:6,15	reliance (3)	26:17	129:8
recovery (1)	141:4	49:1 56:20	116:19	replaced (1)	reside (1)
135:22	reductions ...	72:20 88:19	122:14	34:23	59:21
red (3) 60:5	4:25 6:8,10	146:10	137:25	report (6)	resident (1)
93:10	31:20 49:3	regular (2)	relief (3)	39:9,16	90:2
136:14	64:19 74:20	106:1	31:20 55:22	105:4	residential ...
reduce (28)	76:8 120:17	111:25	57:6	106:11	16:15
4:6 5:25 6:4	140:7	regularly (1)	relieved (1)	133:3,14	residents (3)
21:8 33:2	Reem (3)	127:8	82:15	reported (2)	50:8 53:21
46:5,15	77:15,16,16	regulation ...	Religious (1)	44:1 149:5	132:15
48:5,21	refer (1)	17:1 100:6	103:14	reporter (8)	resides (1)
62:11 64:15	10:10	106:25	rely (1) 19:18	11:7,12,25	73:5
69:4 81:19	referred (1)	123:20	remain (5)	14:21 37:18	resilience (1)
85:21,25	132:25	129:17	25:25 33:14	71:2 88:18	64:10
89:25 94:19	reflect (2)	regulations...	39:12 63:8	89:7	resiliency (1)
98:4 104:9	72:8 97:4	27:16,17,19	87:12	Reporting ...	71:9
107:7,22	reflects (4)	28:13 29:6	remaining ...	1:19	resilient (1)
109:2	4:15 7:5	29:8 59:18	53:12 76:10	reports (2)	64:8
112:25	92:10 98:15	99:5,6,9	83:15 90:18	94:8 106:1	resource (1)
122:14	refuel (1)	113:25	remains (1)	repost (1)	43:2

48:3 79:18	131:22	60:2 124:22	63:9	37:20	132:5
respect (1)	revenue (1)	risks (2)	route (7)	running (2)	Samantha ...
36:3	52:21	78:12 138:8	16:6 55:19	3:15 54:7	132:1,3
respiratory...	Reverend (9)	risky (1)	58:12 73:7	runs (1)	San (4) 81:3
31:18 39:4	103:5,6,12	122:2	73:13 122:3	19:18	90:6 95:24
105:16	105:19,21	Rita (1) 65:4	143:24	rural (4)	96:19
123:16	105:22	River (1)	routes (1)	51:21 52:2	Sarah (3)
124:2	141:22,23	108:12	31:13	85:8 93:22	72:15,16,17
132:16	142:2	Rivian (1)	RPR (1) 1:14	Ruth (3)	Sarfaty (7)
143:3	revise (1)	111:22	rule (56) 2:4	92:14,20	125:13,14
respond (2)	72:8	RJ (2) 138:16	3:11,19 4:2	99:21	128:15,16
8:2 98:16	revisit (1)	138:17	4:3,4 7:10		128:25
response (2)	17:7	road (11) 4:7	7:25 8:5 9:8	S	129:3,5
8:4 65:3	revolution...	15:17 19:12	10:6 15:8	Sacrament...	save (4)
responses (1)	26:16	21:14 29:7	17:1,4,8,12	90:3	74:23
28:20	rich (1) 47:13	53:22,23	20:7 21:10	sacredness ...	108:23
responsibil...	Richard (3)	62:2,15	21:25 22:3	142:19	128:23
112:19	105:20,21	90:25	22:10 23:7	safe (1) 54:21	138:9
responsible...	105:22	107:21	23:13 33:9	safely (2)	saving (4)
61:5 62:3	right (21)	roads (3)	33:14,20	32:1 34:21	31:20 75:14
65:25 75:11	15:23 36:14	25:5 98:4	34:6,11	safety (1)	77:10 103:9
restricted (1)	56:3,25	126:7	41:7,20	42:14	savings (9)
11:19	57:9 58:17	roadway (1)	61:2 69:13	Saleh (4)	4:24 6:21
restrictions...	83:15 91:23	68:22	70:7 71:5	117:23	6:22 31:25
96:15	108:7	Rob (2)	71:10,15,16	121:2,6,10	32:2 77:9
result (9) 6:7	126:14,15	32:15,17	71:23 72:4	sales (17)	122:11
15:11 17:4	126:20	Robert (1)	73:3 80:18	16:25 18:19	125:4
33:10 50:3	127:7,10,12	32:17	81:9 84:19	35:1 49:12	136:21
65:19 74:6	127:13,18	Robin (1) 3:7	87:17 89:25	72:1,5,11	saying (3)
76:13	127:19,21	robust (1)	91:23 92:10	97:13 98:20	19:20 85:4
119:20	137:10	113:13	108:24	104:12	106:2
resulted (1)	141:1	role (4) 69:15	119:1,8,12	109:4	says (4) 2:13
95:10	rigorous (1)	91:13	120:23	113:16,23	55:8 62:9
resulting (2)	42:21	117:16	134:5	114:2 116:7	111:15
4:24 42:13	riots (1)	136:13	139:25	120:5,12	scale (4)
results (2)	85:14	Roof (1)	140:4	Sallee (6)	85:22 86:1
16:24 17:1	rise (2) 16:20	112:2	147:23	35:8,14	113:3 140:9
resume (3)	107:7	room (4)	rule's (1)	92:22,23	scaled (1)
9:22 87:8	rises (1)	87:11 108:7	70:17	93:2,3	28:21
87:21	94:25	109:9 131:9	Rulemakin...	Salt (3) 63:2	scaling (1)
retired (2)	rising (3)	root (1) 69:2	1:9	63:7,12	85:19
50:17	65:8,15	Rose (5)	rules (9) 8:16	Sam (10)	scary (1)
105:22	113:23	89:14,14,15	30:10 31:8	117:21,23	128:9
returned (1)	risk (10)	89:18,19	48:5 52:24	122:19	scenarios (1)
27:7	16:12,20	rot (1) 102:7	71:22 76:20	125:19,20	70:16
returning (1)	19:19,20	roughly (1)	109:25	125:22	scheduled (4)
51:7	22:1 44:18	86:4	139:24	126:1,3	11:3 83:11
revealed (1)	54:11 57:24	round (1)	run (2) 26:7	128:13	83:12 87:6

132:2,3,5	42:7 46:25	138:17	56:15 59:11	Shelly (7)	sign (1) 80:13
school (7)	57:19,21	144:18	81:7	35:8,9,14	signal (4)
6:14 93:6	58:7 62:12	147:12	service (1)	92:22,23	42:20 58:17
130:2,20	62:14 72:5	seek (2)	96:9	93:2,3	141:1 144:5
131:7 135:4	75:9 79:9	79:23	services (2)	shift (1)	signaling (1)
135:11	91:18 104:4	141:13	19:15 32:19	78:13	78:3
science (6)	124:18	seeking (1)	serving (2)	ship (1)	significant ...
21:21 62:6	135:24	5:5	8:17 65:2	68:18	4:13,24,25
62:9 64:8	136:2	seen (1) 36:6	session (1)	short (4) 5:2	6:21 18:14
108:25	137:11,13	sees (3) 53:22	87:4	11:6 15:14	19:7 20:12
140:9	140:16	53:23 67:17	set (14) 3:17	18:2	36:15 46:8
scientist (1)	securing (1)	segregation...	3:23 5:13	shortchang...	67:4 73:10
54:15	107:13	16:15	19:21 30:2	80:8	75:11 90:9
scored (1)	security (7)	sell (3) 19:2	32:6 41:25	shortcomin...	91:9 92:5
113:22	52:9,22	120:15	45:4 46:7	34:3	132:23
scraps (1)	64:8,11	141:1	47:16 74:17	shortens (1)	136:13
36:12	65:17,18	send (14) 8:8	98:12	90:15	137:25
screen (12)	70:19	23:21 35:13	108:24	shortfalls (1)	significantl...
2:15 12:1	Sedona (1)	37:25 99:24	149:7	70:13	6:4 15:21
12:18 13:8	43:14	115:3 118:2	setting (1)	shortly (1)	63:13
13:14 14:12	see (29)	122:23	73:1	12:19	120:11
14:20 41:1	16:17 29:7	125:20	seven (3)	shortness (1)	121:22
88:9,14	38:3 40:23	139:2	10:25 52:18	68:11	similar (3)
89:6 92:15	53:5 59:3	144:20	112:25	show (8) 2:15	17:9 77:9
screening (1)	60:5,19	145:3	seven-year...	6:15 40:25	92:4
82:11	67:11 77:8	146:22	68:6	71:10 88:9	similarly (4)
sea (1) 107:7	84:1 86:24	148:4	seventh (1)	88:10	18:12 85:8
search (1)	89:14 93:17	sending (2)	61:15	109:18	117:16
80:1	95:17 97:12	126:18	severe (3)	111:4	132:25
seas (1) 65:15	98:9 99:2	147:7	6:15 68:4	shown (4)	Simmons (1)
second (9)	121:3,6	senior (3)	143:3	39:1,10	32:16
10:25 12:3	122:2,20	77:17 108:4	sewer (1)	55:3 143:1	Simons (2)
46:20 79:11	125:19	118:13	102:6	shows (2)	32:17,18
82:9 96:6	126:20	sense (1) 22:8	Shannon (3)	81:20 82:11	simple (1)
119:7	128:15,19	sentiment (1)	118:6,10,12	Shu (3) 80:24	112:4
125:22	145:8	60:8	shaping (1)	80:25 81:1	simply (2)
135:12	146:18	sequesters ...	80:11	sick (3) 95:1	22:15 34:1
secondary ...	147:1	51:16	share (3)	108:13	simultaneo...
113:13	seeing (16)	Sequoia (1)	36:5 41:20	109:13	140:2
seconds (1)	23:17 35:8	81:24	49:16	sicker (1)	sincerely (1)
53:11	44:13 87:2	serious (2)	shared (1)	136:10	117:14
sections (1)	89:12 92:15	44:24 96:17	96:8	sides (1)	Singerman...
145:22	114:23	seriously (2)	sharing (1)	68:16	123:4,5,9
sector (27)	116:24	18:17 90:19	20:25	Sierra (7)	123:11
4:7 15:18	117:22,24	serous (1)	sheds (1)	15:7 35:21	single (8)
18:1,16	122:21	62:17	81:23	89:20 92:20	73:25 97:5
30:7,13,15	123:2	serve (6) 2:9	Shelburne ...	93:4 108:5	100:22
36:21,23	125:13	3:8 18:25	64:5	126:4	101:1,5

143:16	smell (2) 16:6	93:17	speak (21)	144:15,17	67:12
sitting (2)	135:10	son (1) 65:9	9:4,19,24	speakers (14)	staff (2)
108:6 135:1	smog (3)	Sondheim ...	11:24,24	8:24 9:1,25	100:6,13
situated (1)	127:14	89:11,12	12:16 14:20	11:3 12:6	stakeholde...
39:6	132:25	99:21	20:20 37:16	12:15,25	7:6 69:23
situation (1)	133:7	sons (1)	39:22 80:20	21:12 23:5	71:4
111:7	smoke (3)	57:15	83:18 86:15	37:17 88:19	stakes (4)
six (6) 13:1	63:6 124:5	soon (8)	86:20 88:17	99:20	21:18 79:5
34:24 52:5	128:9	19:12 24:11	89:6 103:8	117:25	79:9 80:12
53:7 112:17	smoker (1)	39:24 40:6	115:10	146:10	stance (1)
131:19	28:3	49:20 50:9	138:12	speaking (8)	116:6
size (2) 77:8	smoothly (1)	61:4 83:4	145:1	10:4 12:17	stand (1)
97:8	102:22	soot (3) 31:1	146:20	12:20 35:22	109:24
sized (1)	society (2)	31:2 133:7	speaker (60)	48:4 59:8	standard (9)
48:25	129:9	sore (1) 135:5	11:23 14:10	81:24	17:11 23:7
skeptical (1)	131:18	Sorry (1)	14:11,19,24	145:12	42:21 78:18
85:17	soil (2) 51:9	71:3	17:18 20:17	specializes ...	95:12 97:5
skilled (1)	51:15	sort (3)	23:17 24:19	32:20	98:14
26:1	soils (1) 51:5	126:11,16	27:2,3	specializin...	120:19
skip (1)	solar (2)	126:22	29:16 32:15	38:16	142:9
111:21	24:16 112:2	sound (2)	35:7 37:24	specifically...	standards (...)
Skipworth ...	sold (13) 5:20	20:11	40:22 43:6	58:10 110:8	1:10 2:5
137:4,5,6	5:24 15:10	128:17	45:15 47:20	specifics (1)	3:17,20,25
slash (1)	17:2,5	source (14)	50:14 56:8	21:10	4:9,10,12
107:2	18:23 62:15	15:19 21:3	59:2 61:16	specified (1)	5:10,12,15
sleep (2)	75:25 77:6	22:7,16,18	64:2 66:15	33:14	5:18,22 6:3
43:25 68:5	92:2 106:16	22:25 44:15	69:8 72:14	spectrum (1)	6:24 7:11
slight (1)	106:20,23	48:7 63:9	75:3 77:14	145:23	15:14,25
9:19	solely (1)	74:1 75:10	80:23 88:13	speed (3)	17:8,9,13
slotted (2)	72:24	104:4	89:5,11,13	81:10 85:22	19:21 25:7
83:10,16	solution (8)	132:23	92:14,21	140:9	30:11 31:10
slow (3)	19:22,25	133:1	95:16 97:19	speeding (1)	31:19 32:22
37:18 71:1	31:4 34:21	sourced (1)	100:3 103:4	107:9	36:18 37:8
96:3	61:9 66:11	116:20	105:19	spelled (1)	37:11 38:22
slower (2)	69:1,2	sources (7)	108:1 110:3	38:8	38:24 39:23
119:6	solutions (6)	63:4,5	112:12	spend (1)	40:1,6,10
120:13	19:24 33:4	68:16 78:22	114:22	34:13	42:3,6,17
slowly (3)	41:21 94:18	90:22,25	115:6	Spokane (1)	43:9,12,17
11:24 37:16	112:4	92:7	117:21	123:25	43:18 45:10
88:17	115:20	south (2)	118:5 121:2	spring (1)	46:1,8,12
slows (1)	solve (2)	90:17	121:2	7:15	46:13,14,17
122:7	93:25	143:17	122:19	spur (1)	46:20 47:1
small (7) 2:19	100:24	southeast (1)	125:12	31:24	47:5,7,15
25:22,23	solved (1)	66:20	132:1	squandere...	47:16 49:17
32:21 53:20	24:15	southern (2)	134:15	119:5	50:10 54:25
55:20 95:12	solvers (1)	81:11 110:9	137:3	stabilize (1)	55:3,6,15
smaller (1)	93:14	space (1)	138:16,23	129:10	55:21 57:5
25:12	solving (1)	11:9	141:21	stable (1)	57:10 58:15

58:20 60:24	138:21	107:1	stifle (1)	80:2 106:13	57:4 61:2
61:3,25	144:22	112:15,18	33:10	121:16	61:22 63:21
63:22 66:2	145:4	112:20	stinks (1)	122:1	69:4 94:17
66:10,22	146:15,24	113:1,3	127:17	stroke (1)	104:8,21
67:6 69:4	147:8	114:2,6,7	stop (3) 28:5	142:16	108:24
73:1 74:18	start (10)	124:20	29:3 148:13	strokes (5)	120:19
74:19 75:13	21:5 55:13	132:21	stopped (2)	54:11 57:25	128:5 134:8
75:21 76:7	62:18 74:21	137:24	28:4 139:1	57:25	136:23
76:9,13,15	87:13 94:25	stationary ...	stopping (1)	124:23	138:13
77:21 78:1	128:20	22:6,17	126:7	137:17	139:15,24
78:8,12	139:1 144:5	stations (1)	storm (2)	strong (37)	141:12,14
79:13,15,20	147:18	107:11	67:24 127:5	15:8 21:24	142:10
79:24 80:3	starting (4)	statutory (2)	storms (1)	31:9,10,19	143:21
87:18 92:5	89:10 92:1	98:11	85:13	42:3,5	144:10
94:13,18	118:24	127:25	story (1)	46:13,15	strongly (8)
96:1 97:14	129:24	stave (1)	108:11	47:8 55:1,3	42:2,10
98:24 104:8	state (23) 7:7	127:3	straight (2)	57:10,11	43:15 45:22
104:21	13:3 19:7	stay (5) 55:18	127:14,15	58:3 61:25	69:20 76:12
105:8	31:5 39:9	58:12	strains (1)	62:1 66:22	117:8 146:3
108:25	51:17 66:18	108:14	68:1	67:5 70:6	struggle (2)
109:2 113:2	69:16 73:5	110:24	stranded (1)	74:17 78:6	44:3 133:9
113:2,5,19	73:8,9,11	143:23	19:15	84:9 86:3	struggled (1)
114:14	76:19 82:11	steep (1)	strategies (2)	98:24 105:7	67:25
118:15	105:4	25:14	41:22 78:14	109:25	struggling ...
120:1,4,13	112:23	stenograph...	strategy (2)	118:15	54:16 135:2
121:11,15	114:12	149:5	101:3,4	123:20	Strzelec (3)
122:4,9,12	133:2,14	step (15) 4:4	streaming (...)	128:22	20:18,19,21
125:1 126:9	135:19	31:11 36:15	14:3	139:22	student (1)
128:5 130:7	137:19	46:8 58:3	strengtheni...	140:20	62:6
132:11	139:14	67:2 75:19	40:1	144:4,5	students (3)
134:11	149:23	94:3 95:12	stress (1)	145:13,14	93:6,13
136:11	state's (1)	107:5	135:8	145:23	94:23
138:5	91:9	111:21	stressing (1)	stronger (8)	studies (4)
139:22	stated (2)	114:19	40:4	40:5,10	39:1 64:8
140:10,23	103:12	128:4 140:5	stretch (1)	60:23 73:3	115:18
141:14	105:9	143:20	72:10	123:21	143:1
143:21	statement (1)	Stephanie (...)	strict (2) 25:6	125:1	study (3)
144:4,10	8:20	1:14 149:22	59:18	136:11	62:7 77:20
147:24	statements ...	steps (1)	strictly (2)	138:7	143:13
stands (1)	7:19	107:20	12:6 88:20	strongest (...)	Su (3) 75:4,5
116:2	states (26)	stern (1)	strides (1)	30:3,10	75:6
star (16) 13:1	1:2 2:2	107:16	137:25	32:6 36:18	subject (1)
23:19 35:10	17:10 22:18	Steve (2)	stringency ...	37:8 38:23	3:22
53:7 83:24	24:25 30:15	89:11,12	41:25 119:2	39:22 42:16	submit (8)
86:23 92:19	36:23 40:4	Steven (1)	119:4	45:2,25	8:11 9:12
100:1	54:21 73:17	99:20	stringent (8)	47:16 48:4	9:13 12:10
122:25	76:21 92:4	stewardshi...	5:7 16:3	49:17 50:10	14:16 37:20
125:17	96:6 104:6	36:4 103:24	66:2 78:14	55:15 56:1	88:25 148:7

subsidies (2) 25:20 111:8	18:24	117:14	105:6	13:13	121:21
substantial... 121:17	suppliers (2) 17:23 19:4	sustainable... 52:21 61:10	117:11	technologic... 78:2 121:24	143:14
substantial... 32:2 85:24	supply (7) 70:12,14,20	117:18	132:11,15	technologic... 70:2	145:20
substantive... 99:15	78:13 80:1	sustainably... 20:3	132:22,25	technologic... 4:16 5:14	tentative (1) 9:18
subtitles (5) 2:15,16	support (31) 6:25 17:24	sustaining ... 129:11	136:4,17	technologic... 6:2 7:3 33:1	term (10) 37:8 40:5
88:10,10,11	17:24 19:8	sustains (1) 110:10	137:20	33:3,7	60:7 63:20
suburban (1) 126:10	19:10 20:6	SUV (1) 66:3	139:17	34:15 78:6	85:6 94:18
suburbs (1) 130:9	20:11 21:6	swift (1) 142:9	140:13	78:23	94:18 104:8
success (3) 20:14 69:24	21:9 24:25	swiftly (4) 38:21 57:2	take (16) 9:21 11:4	100:25	117:13
107:19	42:10 43:16	61:21 62:11	16:16 31:11	102:25	128:5
successful (1) 70:1	45:22 46:11	swine (2) 101:25	70:15 83:11	113:18	terms (2) 5:2
successfull... 70:13 114:7	49:22 51:11	102:2	94:3 101:12	122:5	22:24
suffer (2) 22:23	63:19 66:21	symptoms ... 6:13	106:7	technology ... 19:4,22	testifiers (2) 8:23 9:24
133:13	69:20 70:11	syphoned (1) 25:19	107:16,20	22:3 23:7	testify (22) 3:2 11:4
suffering (1) 94:11	72:25 81:9	system (5) 42:19 71:13	119:16	26:6,10,15	12:22 13:2
suffers (1) 36:8	82:10 84:9	96:8,10	122:2 133:9	26:22 28:11	15:4 47:17
sufficient (1) 71:6	85:3,6	112:9	136:9 138:2	29:3,5	53:19 56:14
suitcases (1) 65:6	113:12	systems (1) 100:12	taken (4) 11:6 60:16	33:11,12,16	61:18 75:6
suited (1) 5:14	114:6	T	61:3 87:15	33:25 34:18	94:4 118:11
summary (1) 72:7	129:22	table (1) 45:4	talked (1) 96:18	49:10 55:2	120:23
summer (3) 73:11 124:1	supported ... 50:4	tackle (2) 139:20	talking (1) 56:23	57:10 61:25	125:7 129:4
124:15	supporters ... 89:23 108:8	140:8	tandem (1) 78:6	69:17 72:1	132:4
supercharg... 25:14	supporting... 2:8 8:2 80:6	tackling (3) 104:16	tangible (1) 63:15	84:11 98:17	134:18
Superchar... 24:23 25:3	84:14	140:19	target (2) 15:15 98:20	100:23	136:25
25:8,11	supports (5) 29:24 51:14	141:6	targeted (1) 104:12	101:1,5,6,8	139:9
supplemen... 9:12 146:5	76:12 91:24	tailpipe (28) 22:5,9,17	targets (7) 5:9 30:4	102:15	141:18
supplier (1) 115:22	110:20	23:1 28:23	32:7 78:20	115:14	142:3
	surprise (2) 39:5 130:8	30:19,25	98:12,21	116:4	146:19
	surround (1) 106:9	31:21 36:23	120:14	119:10	testifying (4) 35:20 45:19
	surrounde... 51:1 68:16	37:2 39:7	taught (1) 57:16	121:25	46:2 123:11
	surroundin... 28:5	39:20 54:8	tax (1) 25:18	144:3	testimony (...) 3:11 8:22
	surveys (1) 131:21	67:3 90:14	Taylor (4) 84:1,3,6,7	teenage (1) 65:9	9:2,13,14
	sustainabil... 115:22	94:1,15	teacher (1) 93:3	television (2) 109:8,10	10:1 11:20
			teaching (2) 93:5 130:3	tell (2) 93:16	13:4 14:7,9
			technical (1) 105:4	108:10	14:13 23:25
				temperatur... 44:17 94:25	29:11 37:12
				107:17	40:19 45:11
				ten (9) 7:4	83:11,17,19
				10:25 11:1	83:25 84:3
				52:18 59:24	86:16,17,25
				105:4	88:13,16
					100:14

128:21	86:11 87:1	thermodyn...	81:17 83:7	131:23	132:4 134:6
130:23	87:10,14	22:14	88:16,20	139:23	134:19
144:25	89:18,23	thing (3)	89:17 93:1	141:9	135:18
145:6,6,10	92:11,12	100:15	95:3,22	145:25	139:9
146:11,21	95:13,14	122:3	99:19	147:14	141:18
147:2,10,13	97:16,17	126:11	100:14	148:6 149:6	142:3 145:7
147:21	99:13,16,17	things (6)	105:17	timeframe ...	146:21
149:4	100:5 103:1	37:3 68:12	116:22	18:2 55:6	today's (17)
Texas (5)	103:2,7	85:4 94:16	117:25	timeline (1)	2:10,10,25
65:3 66:18	105:18	96:17	119:4 121:2	71:5	3:6,15,22
93:4,4	107:23,24	122:10	121:9 123:8	timely (1)	8:7,15,15
137:19	109:25	think (10)	125:25	19:25	8:18 10:15
thank (149)	110:1,5	84:17 86:10	128:11	timer (2)	10:20,22
2:21 10:17	112:9,10	93:6 96:13	129:2	12:1 70:25	11:2,10,11
10:20,21	114:19,20	96:18 97:4	133:23	times (13)	88:5
15:3 17:16	115:9,10	99:19	139:5 142:1	9:25 33:14	told (1)
17:17,21	117:18,19	109:11	threw (1)	34:24 43:24	108:13
20:15,19	118:11	128:3	65:7	44:24 62:24	tolls (1) 73:14
23:14,15,24	120:22,24	130:11	tic (1) 16:19	73:23 86:4	tomorrow (...)
24:16,17	121:10	third (5)	tied (1) 27:23	116:20	27:10
26:25 29:10	122:15,17	10:23 47:1	tightened (1)	127:11	tool (1) 13:7
29:12,18,20	123:9 125:6	60:5,21	141:13	133:15,23	top (4) 59:24
29:23 32:11	125:8,9,10	119:15	tightly (1)	135:8	60:1 112:2
32:13 35:4	128:12,13	third-party...	27:23	titled (4) 2:4	141:8
35:5,18	129:3	2:8 88:1	time (52) 3:1	3:19 87:18	tornadoes (1)
37:10,13	131:24	Thomas (1)	4:22 8:10	147:23	67:20
38:6,18,21	132:3	130:1	8:24 9:25	today (49)	tornados (1)
40:18,20	134:12,13	thousands ...	12:7,8,20	3:3,10 7:8	85:15
41:5 43:4	134:17	101:13	13:12 14:19	9:4,19,22	touches (1)
45:10,12	136:24	117:1	18:23 20:15	9:23 10:4	143:17
47:17,18	137:1,8	threat (3)	24:4 37:11	10:10 12:17	tougher (2)
50:11,12	138:11,14	30:19 64:13	37:20 44:14	14:15 20:20	58:20 84:16
52:25 53:2	139:8	124:8	50:11 53:1	20:25 30:2	tow (2) 25:13
53:13,18	141:17,19	threatenin...	58:24 60:5	35:22 48:4	85:11
55:24 56:5	142:3,8	123:16	61:12 62:2	50:11 53:19	town (3) 52:3
56:6,13	144:11,13	threats (1)	62:9 66:12	54:22 56:18	53:21 55:20
57:1 58:23	146:6,7	64:11	69:6 73:4	56:23 59:9	toxic (4) 24:8
58:25 59:13	147:3,11,19	three (44)	74:20 77:12	61:19 62:15	30:20 54:9
61:11,13,17	147:20	8:22 9:2,23	78:5 82:2	72:19,21	136:4
61:20 63:22	148:9,10,12	10:23 11:23	83:14 87:9	75:7 80:20	toxins (1)
63:24 66:11	148:13	12:7 14:14	88:20,21	83:20 85:4	142:12
66:13 69:7	thankfully ...	27:1 29:19	89:5 96:1,2	88:24 97:23	track (2)
69:10 72:11	127:21	32:3 42:1	96:21 99:10	103:8	46:18 140:6
72:12,17,18	thanks (3)	44:24 47:25	103:1	108:11	tractors (1)
74:25 75:1	27:15 53:16	53:15 56:12	109:25	109:18,21	52:16
75:6 77:13	76:16	59:6 62:16	110:21	113:20	tracts (1)
80:19,21	theoretical ...	68:3 71:8	119:3 130:5	118:11	143:15
83:8 84:6	143:8	73:17,23	130:19	129:6,18	trade (1)

41:18	69:21 72:9	20:24 131:8	true (3)	two-thirds ...	underestim...
trading (1)	74:3,5 92:8	tree (1)	22:13 90:11	75:23	72:3
84:15	99:1 114:6	127:18	149:4	types (2) 25:4	underlying...
traditional ...	transitiona...	tremendou...	truly (4) 23:6	84:20	131:9
99:10	80:7	36:2	34:18 71:20	typically (1)	undermine...
traffic (12)	transportat...	trend (1)	104:21	115:25	18:18
16:9 39:2,6	15:5,17	49:18	try (3) 36:11		understan...
73:6,10	18:1,16	trends (1)	94:21 131:8	U	23:6 94:23
127:10	20:4 30:7	113:23	trying (2)	U.S (42) 2:23	94:24
131:5,10	30:13 32:8	Trevino (3)	65:5,10	20:13 37:6	understan...
132:14,18	36:21 40:13	66:16,17,18	tsunamis (1)	44:6 48:7	80:13 93:11
142:11	41:14,21	tribal (1) 7:7	85:14	48:22 49:3	135:14
143:18	42:19 46:25	Tricia (3)	Tuesday (2)	49:25 50:2	undescriba...
tragic (1)	48:6,16,24	64:2,3,4	10:24 83:20	50:6,8 51:6	60:3
44:14	51:23 52:8	tried (1)	turn (22)	51:13,25	unfortunat...
trailers (1)	57:19 58:6	93:15	2:11,12,13	52:6,9,10	133:2
85:11	60:22 62:12	trillion (2)	2:16,17	52:22 57:21	unhealthy ...
trained (1)	66:6 68:22	5:4 32:3	10:18 12:8	60:1 62:14	6:9 16:13
129:5	73:25 75:9	trips (2)	12:16,23	63:17 66:6	40:8 44:7
training (1)	77:23 81:7	96:11,20	24:4 36:4	68:21 69:11	68:24 73:18
130:11	81:12 91:18	Trisha (3)	38:5 41:3	74:2 75:10	105:5
trains (1)	96:10 98:8	40:22 41:4	72:3 84:5	77:3 91:19	129:20
52:4	104:4,17	41:7	88:6,8,11	94:12 104:2	130:16
trajectory (...)	105:10	trouble (1)	88:22 118:8	106:19	unhindere...
95:3	112:9	93:12	121:5	107:9	142:23
Transcribe...	114:10	truck (10)	128:22	114:16	unintended...
1:14	117:17	6:4 30:11	turned (1)	117:4 120:7	21:16,25
transcribin...	120:20	31:13 43:17	11:22	121:22	unions (1)
2:10 88:5	124:18	52:24 79:1	turns (1)	122:14	77:19
transcript (...)	126:5	94:20	55:7	136:3 140:5	Unit (1) 1:20
2:14 9:5	135:24	104:10	twelve (3)	140:17	United (13)
11:13 149:4	136:2	110:19	9:22 11:5	143:11	1:2 2:2
Transfer (2)	137:11	111:23	83:13	U.S.A (1)	22:18 24:25
100:8,9	138:4	trucks (29)	twenty (2)	103:17	30:15 36:23
transforme...	139:21	4:5,11 5:20	21:2 51:4	Ultimately ...	54:21 96:6
93:21	140:16,22	5:24 16:7	twice (1)	140:12	104:6 107:1
transformi...	trapped (1)	17:12 25:5	130:25	unaccepta...	124:20
17:25	63:1	28:16,24	two (18)	40:9	132:21
transforms...	travel (1)	31:6 36:20	17:11 42:25	unborn (1)	137:24
20:3	96:10	40:2 42:13	51:13 62:16	142:21	university (...)
transit (2)	treasured (1)	44:9 45:7	68:17,17	uncertaint...	27:6 64:9
28:8 60:18	91:10	51:4 59:19	75:8 76:7	126:22	129:7,8
transition (...)	treat (1)	60:24 66:3	76:19 78:17	undercut (1)	143:13
17:16 31:22	116:2	66:10 67:11	85:7 90:24	18:19	unlock (1)
41:14 42:18	treated (2)	76:20 85:20	116:18	underdevel...	4:20
48:8,15	123:15	104:1 105:7	117:25	70:12	unlocked (1)
49:7 50:7	124:24	126:9 128:7	120:4 124:7	underestim...	79:17
64:19 67:11	treatment (2)	140:11,13	133:8 142:6	72:4	unlocks (1)

unmute (9)	40:4	90:6,7,17	102:16	77:6 78:10	versa (1)
12:21 13:1	urgently (3)	valleys (1)	104:12	79:8 82:18	71:19
23:23 38:4	30:8 57:3	63:1	105:14	84:16,25	verses (1)
41:2 53:7	58:8	value (5)	109:4 110:7	85:12 86:7	55:7
84:4 118:8	urges (2)	18:9 28:20	110:8	87:20 90:1	version (3)
121:5	71:21 72:7	35:23 36:1	112:25	90:9 91:8	10:7,11
unnecessar...	urging (1)	102:14	113:23	91:20 92:2	141:13
111:13	45:1	values (2)	114:2	92:9 94:2	versus (1)
unpalatabl...	use (30) 5:25	57:16	115:24	94:13 96:15	93:10
34:19	7:2 13:14	104:23	116:7,12	97:10,14	veteran (1)
unprecede...	27:18 34:9	vans (3) 5:24	120:12	98:3,4,13	50:18
79:18	36:11 76:14	36:20 128:7	121:18	99:12	viable (1)
unravel (1)	83:20 85:12	variety (3)	122:8 138:7	102:24	25:25
66:8	85:21,23	33:1 47:3	139:16	106:15,17	vice (3) 17:21
unsecure (1)	86:20 92:16	63:5	140:2	106:20	71:18 142:4
70:12	96:8,15	vary (1) 14:1	141:12	110:20,25	video (3)
unsuitable ...	99:23	vast (3) 22:18	142:11	111:20,22	128:23
34:19	101:16,16	96:19	144:2	112:6 113:7	139:1
update (1)	112:15	133:19	145:22	113:10	147:18
40:1	113:20	vehicle (85)	vehicles (1...	116:1	view (5) 2:15
upfront (1)	115:1	2:19 3:24	1:11 2:6	118:16	65:16 81:23
77:9	116:13,24	4:15 5:15	3:13,18,22	119:9,12,14	88:10
upgraded (1)	122:22	6:2,5 15:8	4:17 6:23	119:17,18	103:23
19:13	126:2	16:25 17:23	7:12 15:10	119:21	viewing (1)
upstream (2)	137:21	19:1,2,8	15:13 16:24	120:2,9	14:1
33:21	138:19	24:2,9 25:4	17:2,5 18:2	121:21	views (3)
115:24	145:1,23	25:9,17	18:6,21	123:18	7:18 21:1
urban (1)	146:12	31:17 32:2	19:12,14,18	127:23	41:19
28:8	user (4)	34:5,12,20	20:1 22:10	129:24	virtual (6)
urge (27)	23:19 35:10	38:24 42:2	26:17 31:22	131:17	2:3,25 3:15
15:7 17:7	83:23	43:12,20	33:18 34:6	132:12	11:9 87:17
19:20 23:12	114:25	44:10 48:5	36:24 40:11	133:19	147:22
30:2 38:23	user's (1)	48:22 49:1	40:12 42:12	134:5,10	visibility (1)
42:2 43:17	101:6	49:2,8,10	42:14 45:4	136:18,24	91:2
45:25 47:15	users (2)	49:12,15	45:6,24	139:17	visible (2)
48:4 55:25	42:15 86:23	56:1 57:4,8	46:16,23,24	140:21	82:2,7
57:3 61:21	uses (2)	61:23,24	47:3,6 48:2	141:7	visibly (1)
66:24 69:3	36:12 101:5	62:15,21,22	49:13,22	145:16,18	90:22
73:2 74:20	Utah (3)	63:15 70:9	50:7 57:12	145:24	visitors (1)
75:19 78:16	62:23 63:5	71:15 72:1	59:15 60:20	146:5 148:1	91:4
91:25	63:18	73:20 75:17	62:2 64:20	Ventura (1)	visits (2) 6:12
123:19	utility (1)	76:25 77:21	66:2,23	24:23	131:9
139:14	114:9	78:5,23	69:17,22	venue (1)	vital (2)
141:11	utilizing (2)	81:14,21	70:5 71:23	80:15	42:16 75:19
142:10	33:7,17	82:5 85:16	73:2,8,14	verbal (5)	vividly (1)
143:20		96:2 97:8	74:5,22	2:12 8:21	135:10
144:9	V	99:8 100:23	75:24,25	14:13 88:7	voice (1)
urgent (1)	valley (3)	101:1,5	76:2,11	88:16	66:21

volume (1) 32:21	95:10	68:8 85:10	85:13 91:16	91:12 100:6	133:14
voluntary (1) 76:4	warm (1) 96:21	web (1) 14:17	wildlife (1) 91:5	103:10,23	worsen (1) 91:17
volunteer (2) 64:5 65:3	warming (9) 62:10 93:14	webinar (1) 13:20	win (4) 31:22	111:2 112:4	worsened (1) 39:20
Voters (1) 139:11	93:24 94:22	website (4) 8:13 9:7,7	94:3,3	126:13	worst (3) 39:16 48:10
vulnerable ... 30:9 44:20	123:18	148:9	136:18	130:15	63:3
58:9 67:7	124:6,12,13	week (4) 38:20 56:20	wind (3) 85:13 112:2	135:19	worth (2) 7:1
74:25	124:19	60:6 101:21	127:13	136:22	77:5
104:24	warning (2) 12:3 107:16	weeks (1) 124:14	window (6) 13:9 31:1	140:1	wouldn't (2) 126:1 128:8
142:22	Washington... 24:1 103:16	welcome (3) 2:2,24	127:7,15,16	worked (4) 90:4,6	wrap (1) 12:4
144:8	Waste (3) 74:20 102:3	87:16	127:18	129:14	writer (1) 27:9
<hr/> W <hr/>	102:11	welfare (1) 128:1	windows (1) 128:10	131:6	writing (1) 7:20
wages (1) 80:6	wastes (1) 110:18	well-being ... 91:4	winner (1) 33:10	workers (11) 78:9,12,19	written (13) 8:4,8,9,11
wait (2) 61:4	watched (3) 54:14	well-crafte... 20:7	winter (1) 67:24	79:5,6,6,8	9:5 10:11
wake (1) 60:4	108:16	well-groun... 61:1	wintertime... 24:4	79:21,25	11:13 37:20
walk (3) 60:6	145:17	went (1) 108:17	wipe (1) 31:1	80:8,12	85:2 86:12
108:21	water (2) 51:15 67:22	west (1) 65:14	wish (2) 109:21	workforce ... 19:10,13,16	148:4,5,7
135:11	waters (1) 65:8	wetlands (1) 126:8	127:19	20:2 80:16	www.regul... 12:11 89:1
walked (1) 65:4	waves (1) 16:18	wettest (1) 50:23	witness (1) 8:20	working (10) 20:21 21:3	<hr/> X <hr/>
wall (2) 1:21	way (20) 23:6	wheeler (1) 68:19	witnessed (1) 64:21	32:25 41:13	<hr/> Y <hr/>
127:12	28:9 48:21	white (4) 39:13 73:24	witnesses (1) 7:18	43:1 96:24	Yacavone-... 64:2,3,4
Walter (3) 45:15,17,18	65:25 95:11	wide (1) 114:7	wonder (1) 54:4	97:8 114:5	yard (1) 108:21
want (17) 49:13 57:1	96:4 97:2,7	widely (2) 60:18	wondered (1) 130:14	126:5,9	Yarmouth ... 105:23
59:13 67:10	97:8,9,10	widespread... 5:24 6:7	wonderful ... 81:25 125:9	126:5,9	year (34) 3:18 17:3,6
82:9 84:19	97:15 111:2	widest (1) 19:21	words (1) 54:18	126:5,9	25:17 26:15
89:23 93:17	111:12,20	wild (5) 63:6	work (28) 3:12 6:13	126:5,9	30:12 33:13
93:19 103:8	113:4 122:3	63:11 65:14	17:14 20:23	world (12) 52:22 61:10	36:18 37:9
111:8	122:13		21:7 26:13	63:3 70:3	39:23 42:17
128:22	127:20		27:17 32:24	94:7 95:7	55:15 63:9
135:8 137:8	138:6		48:19 51:9	95:10 106:3	69:4 73:3
142:8,10,20	ways (2) 66:9		54:17 71:4	106:13	77:6,7
wanting (1) 24:10	79:23		workforce ... 19:10,13,16	116:21	94:19 99:10
wants (5) 56:5 97:3	wealth (3) 39:8 44:19		20:2 80:16	126:14	104:9
101:2,4	105:12		working (10) 20:21 21:3	127:1	106:20
102:8	weather (6) 52:19 64:22		32:25 41:13	worldwide ... 52:11	119:13
war (2) 95:7	64:24 67:18		43:1 96:24	worried (1) 16:8	
			97:8 114:5	worry (1) 135:21	
			126:5,9	worse (7) 16:21 47:11	
			126:5,9	73:22	
			126:5,9	118:20	
			126:5,9	126:24	
			126:5,9	127:3	

120:9,20	108:6,9	114:16	32:10	27:9 50:20	1:10 2:5
124:8,15	112:18	143:24	1.5 (2) 94:22		3:19,21
128:5	Yosemite (1)	zero-emitti...	107:18	<u>2</u>	7:11 39:23
129:24	81:24	67:11 76:1	1.6 (2) 5:3	2.5 (1) 82:4	45:24 63:22
132:11	young (8)	zero-techn...	89:22	2.78 (1)	66:23 87:19
134:12	28:2 29:24	113:4	10:00 (1) 1:6	48:18	119:14
139:23	32:11 44:18	ZEV (3) 76:6	100 (12) 15:9	2:44 (1)	129:24
143:5,22	59:15 68:7	76:18	18:10 44:15	148:16	139:25
144:10	133:24	113:13	49:11 52:10	20 (5) 44:25	147:25
year's (1)	142:21	ZEVs (6)	52:18 64:14	59:8 72:21	149:24
39:16	youngest (2)	77:4 85:17	100:12	104:1 114:5	2030 (19)
years (43)	56:21 68:3	113:16	104:11	20,000 (2)	15:13 55:18
1:10 2:5	youth (2)	114:2,6,13	114:1	53:24 77:10	58:12 72:11
3:21 4:11	30:1 59:11	zone (1) 60:5	124:14	200 (2) 42:24	83:4 92:1
7:4,11 21:2	Yup (1)	zones (2)	140:12	111:16	94:20 99:3
27:6 35:4	121:6	39:2,6	109 (1)	200,000 (2)	104:10
39:11 42:25	Yuri (1)	Zoom (30)	124:15	52:7 143:4	106:3,23
44:25 50:3	67:25	2:14 12:13	11 (2) 1:7	2002 (1)	109:3
50:23 51:5	<u>Z</u>	13:5,21	120:8	95:25	113:16
58:16 59:8	zero (9)	23:18 35:8	11:59 (2)	2003 (1)	119:2,6
62:24 63:22	19:11 22:13	35:13 40:23	8:10 148:5	20:23	140:8,12
66:23 67:24	26:4 34:9	83:22 86:19	110 (1)	2013 (1)	141:16
70:15 72:21	42:18 55:19	86:22 89:12	111:25	52:14	143:23
87:19 96:12	58:13 101:8	92:15,18	110,000 (2)	2015 (2)	2032 (12)
100:11	104:11	99:22,24	48:17 74:7	15:25 24:2	5:20 17:3
101:14	zero-emissi...	114:23	12 (3) 1:20	2017 (1)	45:25 75:25
109:15	15:10 16:23	115:2	3:16 106:12	73:12	83:3 98:20
115:18	17:3,6	117:22	12,000 (1)	2020 (2)	99:4 106:16
119:4	31:22 45:5	118:1	133:12	48:19 74:8	119:3,6,14
121:21	48:9,11,15	122:23	13.4 (1)	2021 (4) 4:9	120:5
123:13	49:10 55:4	125:13	48:18	49:1 139:21	2035 (11)
124:7 126:7	61:8 74:4,6	138:17,20	131 (1)	140:12	15:10 45:6
129:25	76:2 92:3,9	138:21	143:17	2022 (1)	52:16 76:2
131:19	99:12 109:5	144:18	135 (1) 68:23	49:15	92:3 99:5
133:8	119:10	145:3	136,000 (1)	2023 (8) 1:7	104:12
135:20	120:12	146:13,19	49:25	4:12 7:14	109:5 114:2
139:25	128:6	147:7	15 (3) 35:3	10:8 43:18	139:18
140:6 142:7	136:18	Zovich (3)	115:18	45:10 133:2	140:14
145:20	138:3,5	35:16,17,19	142:7	133:14	2036 (4)
147:25	144:6	<u>0</u>	160 (1) 13:20	2024 (1) 7:15	56:22,22
Yeh-Tang ...	zero-emissi...	07719 (1)	18 (3) 68:19	2025 (2)	58:19 77:5
47:21,22	4:17 7:2	1:21	113:3	52:16 77:8	2040 (1)
48:1,2	19:11 22:11	<u>1</u>	149:24	2026 (8) 4:12	71:11
yesterday (3)	34:4 36:19	1 (3) 32:3	1960s (1)	5:11 37:9	2050 (3)
54:16 64:17	42:5 50:7	73:7,13	27:13	46:17 94:19	52:16 74:8
83:20	57:11 62:1	1.1 (2) 30:1	1974 (1)	104:9 120:5	106:4
York (6) 27:8	64:20 106:4		50:19	139:23	20520 (1)
27:10 28:7			1980s (2)	2027 (15)	48:19

21 (2) 27:6 65:17	33 (4) 89:10 95:17 99:20	58 (1) 44:10	101:22		
210 (1) 49:9	139:14	6	82 (1) 17:1		
2100 (1) 52:11	34 (2) 100:3 103:4	60 (3) 24:25 49:1 111:4	85 (1) 52:18		
227 (1) 39:17	35 (7) 115:6	60-year-old... 124:10	850 (1) 5:3		
230,000 (1) 73:8	117:25	600 (1) 50:19	88 (1) 27:9	9	
24 (3) 51:24 73:7 133:4	121:2	61 (1) 5:10	9 (1) 11:1		
25 (1) 52:15	123:13	62,000 (1) 133:12	90 (2) 91:2 96:10		
2510 (1) 1:21	125:12,20	64 (1) 5:18	90/94 (1) 127:8		
26 (1) 44:2	143:6	669-254-52... 13:19	916-955-79... 13:16		
27 (5) 30:14 57:20 62:13	350 (2) 101:25	67 (4) 17:5 98:19	9312 (1) 13:20		
135:25	102:4	106:15	95 (1) 124:14		
137:12	36 (2) 132:1 144:16	120:5	969 (1) 13:20		
280 (1) 51:25	37 (1) 144:16	68 (1) 49:1	975352 (1) 149:22		
29 (4) 14:25 15:18 17:18	4	69 (1) 5:19	99 (1) 51:21		
27:3	4.3 (1) 77:4	7			
29:11 (1) 55:8	4.5 (1) 73:13	7,000 (1) 77:9			
295 (1) 73:7	40 (8) 5:23 51:5 68:23	7.34 (1) 49:16			
3	72:10 75:24	70s (2) 27:13 27:22			
3,000 (1) 53:21	81:12	72 (2) 28:2 31:12			
3.5 (1) 71:11	100:10	73 (1) 54:20			
30 (11) 9:10 12:3 29:15	112:5	732-282-07... 1:22			
34:22 35:7	45 (2) 68:20 104:3	732-282-07... 1:22			
36:22 43:7	47 (1) 39:16	75 (7) 15:11 52:15 94:20			
50:23 52:20	495 (1) 73:7	96:12			
53:11	5	104:10			
111:17	5 (5) 7:13 8:10 10:8	109:3			
300 (5) 25:1 40:3 41:12	86:13 148:5	140:10			
68:21	5.8 (1) 106:19	76 (1) 52:4			
111:23	50 (6) 5:9 40:4 72:11	8			
31 (4) 45:15 47:20 50:15	81:12 84:22	8 (1) 10:25			
56:9	113:15	80 (2) 96:10 97:13			
32 (9) 54:15 64:1 66:15	53,000 (1) 49:23	81.5 (1)			
69:8 72:15	55 (4) 124:21 136:3				
77:15 80:24	137:13				
83:9,10	142:13				