



# ***CLIMATE LEADERS LIVE!***

Please wait, we will begin shortly...





OUR CLIMATE AND OUR HEALTH

# A THREAT AND AN OPPORTUNITY



**“Climate change is the  
greatest threat to global  
health in the 21st century.”**



World Health  
Organization



# Today's speakers



**Nick Manning**

Climate & Health Program  
Organizer

**Dr. Chris Covert-Bowlds**

Physician and WPSR  
Member



**Will Barrett**

Director of Advocacy, Clean Air



**Angela Song**

Air Resource Specialist



**Jamie Pang**

Environmental Health  
Program Director





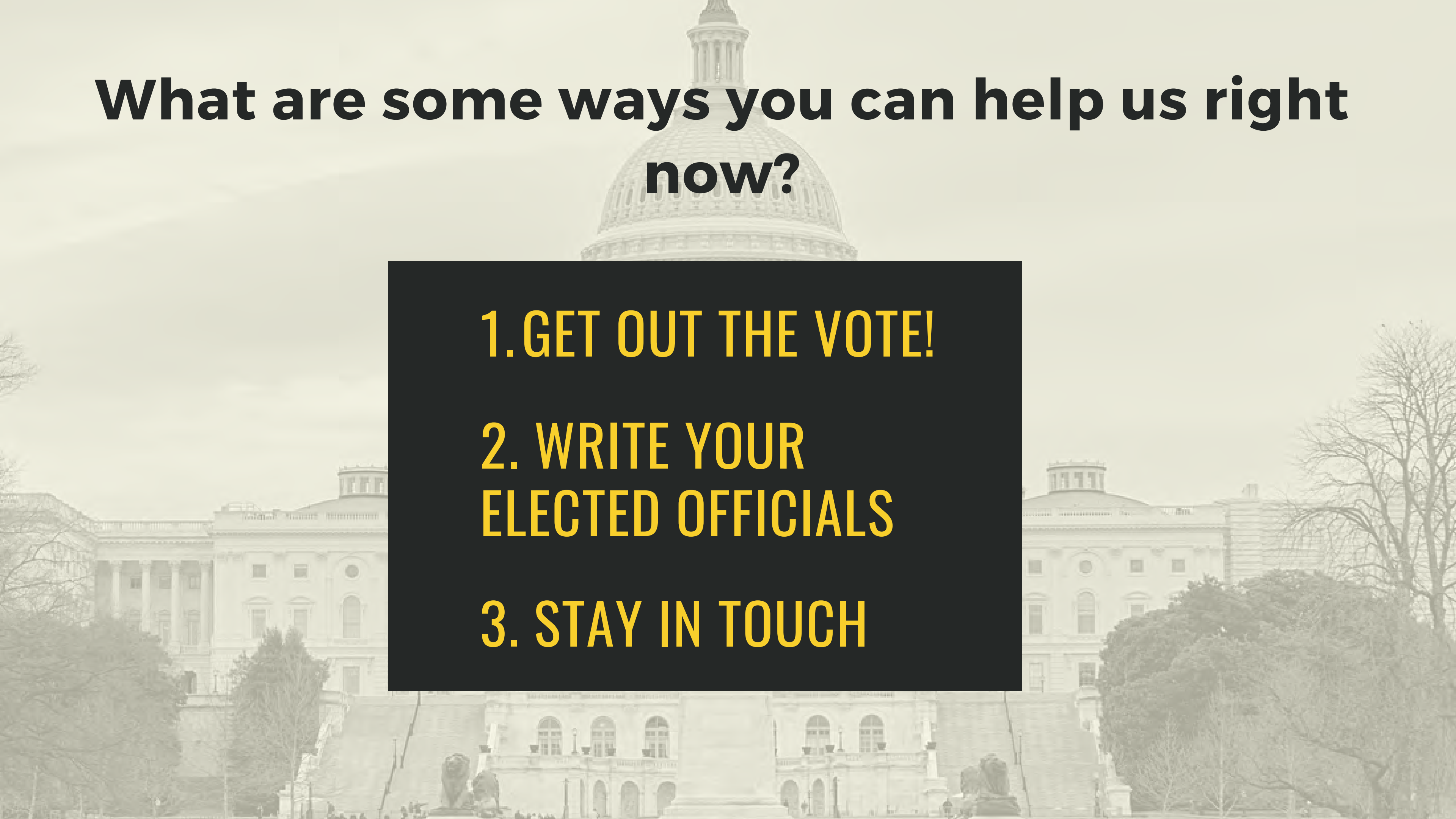
# Get Involved!

**Dr. Chris Covert-Bowlds** - Christopher.J.Covert-Bowlds@kp.org

**Nick Manning** - nick@wpsr.org



WASHINGTON  
PHYSICIANS  
FOR SOCIAL  
RESPONSIBILITY



# **What are some ways you can help us right now?**

**1. GET OUT THE VOTE!**

**2. WRITE YOUR  
ELECTED OFFICIALS**

**3. STAY IN TOUCH**



# Get Out the Vote!

**As much or as little time as you can contribute - we need help turning out voters.**

**<https://www.usa.gov/register-to-vote>**



# Contact your Legislators about Clean Fuel Standards

Leading up to session we need your help writing your elected officials. We are so close, now its time to push across the finish line

Use [this guide](#) to craft and send a message to your legislator



# Get in touch to support efforts towards building electrification

**Efforts across the state need your support, get involved with WPSR to learn how you can help**

**Priorities:** Bellingham, Seattle, Olympia

**Reach out to learn more:**

nick@wpsr.org

**Support our work!**

Visit [our website](#) and learn how you can become a member.



## The Road to Clean Air



Benefits of a Nationwide Transition  
to Electric Vehicles

***Our Health, Our Climate***

***October 8, 2020***



# The Road to Clean Air

## Benefits of a Nationwide Transition to Electric Vehicles

“The Road to Clean Air” highlights the potential for major public health and climate change benefits of widespread electrification of the transportation sector.



## Air pollution remains a major danger to the health of children and adults.

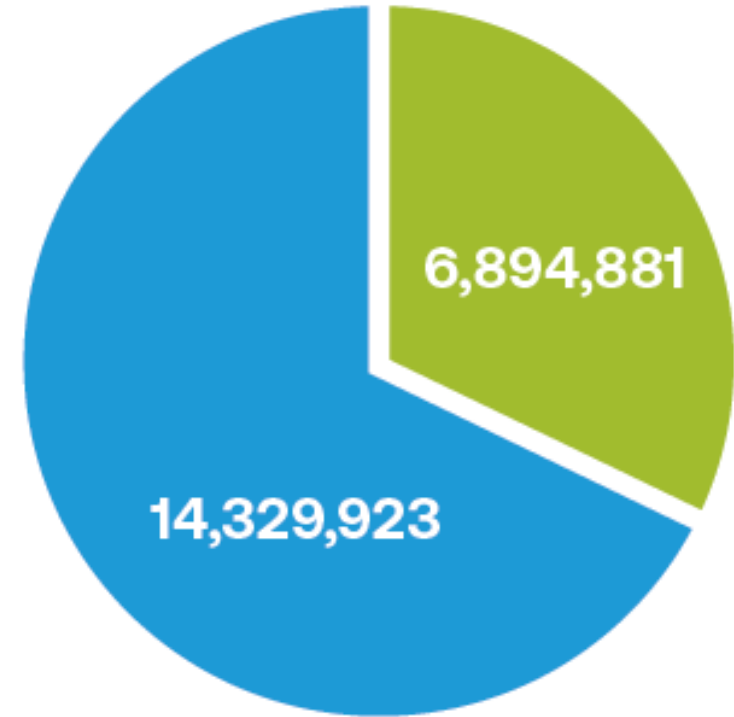




## State of the Air 2020

Americans Living in Counties  
with 3 Failing Grades:  
Ozone Days, Particle Days,  
Annual Particle Levels

- White
- People of Color



*“Far too often, clean air is out of reach for communities living near major pollution sources, including highways, ports and power plants. Communities of color are disproportionately harmed by poor air quality in the United States.”*

***The time to act on electric transportation is now.”***

**Harold Wimmer**

President and CEO  
American Lung Association

# Electric Vehicle Scenario

## 100 percent Zero Emission Vehicle Sales by Category

National scenario focused on deployment of zero-emission technologies across the transportation sector, with sales in ten classes of vehicles ramping up to 100 percent.



- Compared against Business As Usual Fleet per US EPA MOVES model.



# Health Benefits of Avoided Emissions in 2050

**\$72 Billion in Health Benefits**  
due to emission reductions in 2050

**6,300**

Premature Deaths  
Avoided

**93,300**

Asthma  
Attacks  
Avoided

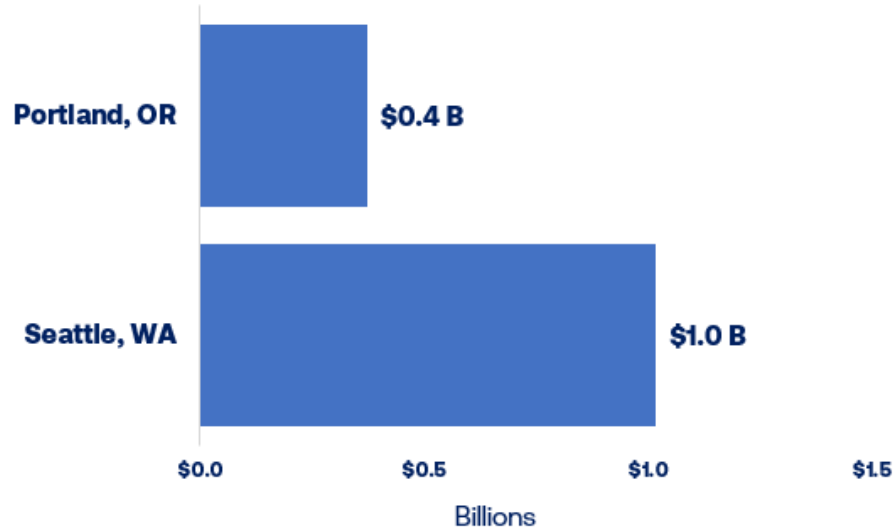
**416,000**

Lost  
Work Days  
Avoided

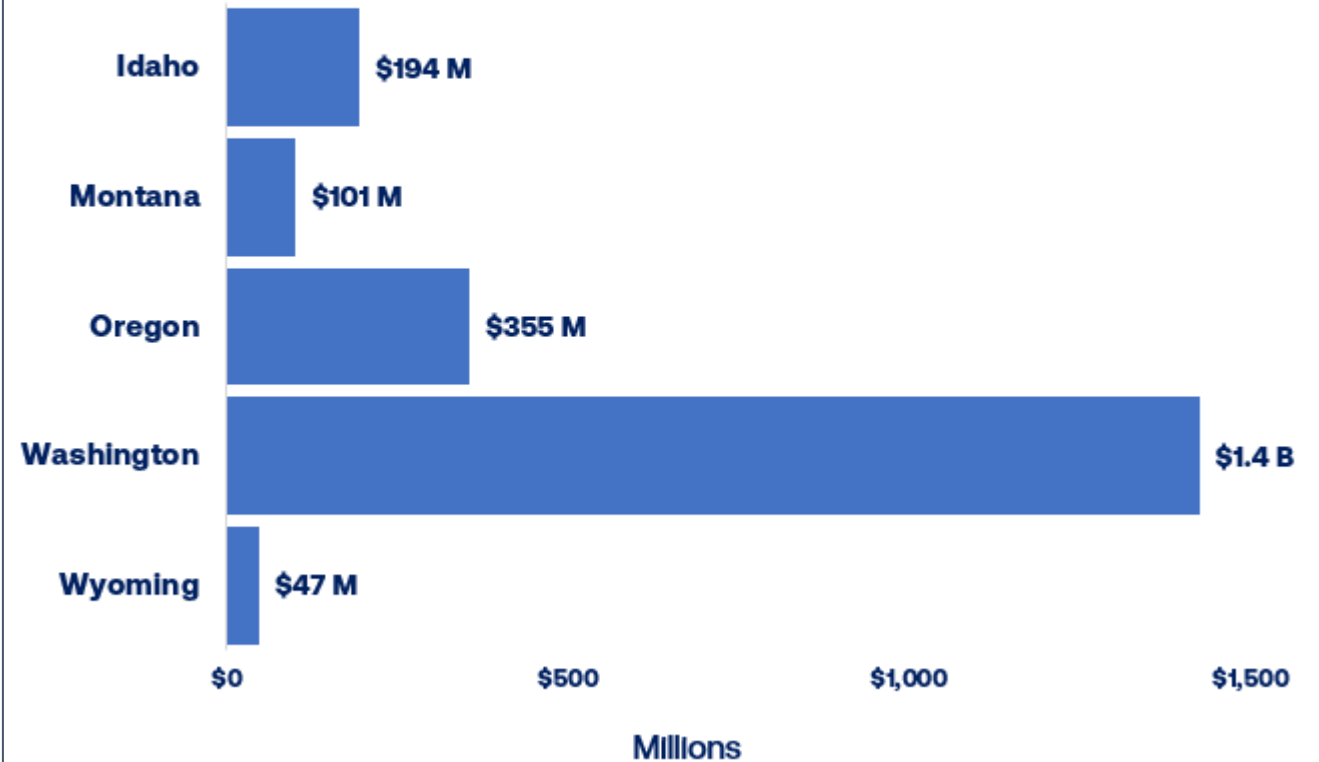
**In the Northwestern States,**  
2050 emission reduction benefits reach:

- **\$2.1 billion** in avoided health costs
- **185** avoided premature deaths
- **2,900** avoided asthma attacks
- **13,000** avoided lost work days

**Northwestern Metropolitan Areas**  
**Total 2050 Health Benefit**

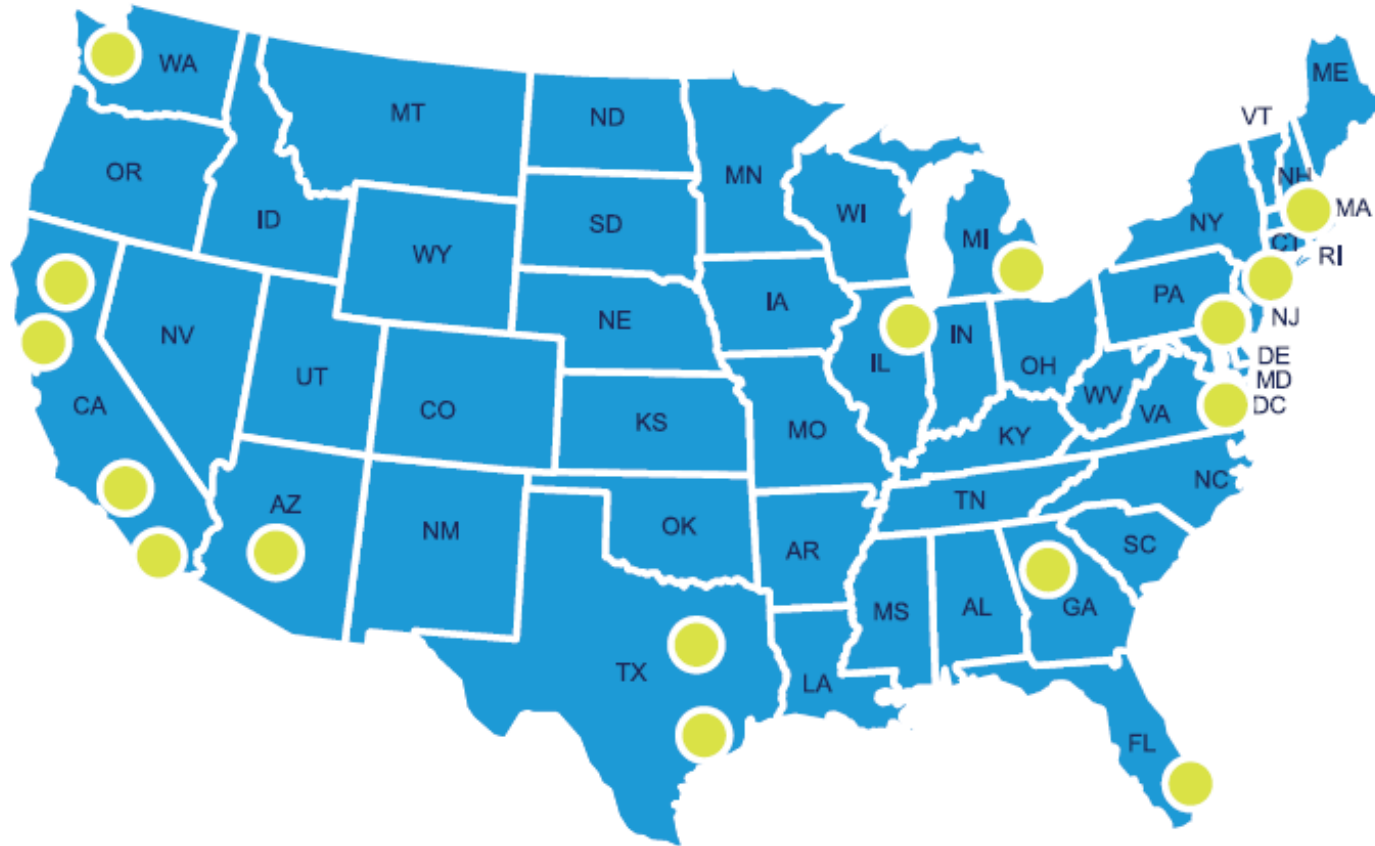


**Northwest States**  
**Total 2050 State Health Benefit**





# Metropolitan Area Results



Metro Area	2050 Health Benefits
Los Angeles, CA	\$14,185,163,117
New York, NY	\$5,191,191,434
San Francisco, CA	\$3,638,114,607
Chicago, IL	\$2,875,776,986
Dallas, TX	\$2,094,390,070
Washington, DC	\$2,007,786,421
San Diego, CA	\$1,934,303,928
Houston, TX	\$1,704,274,597
Miami, FL	\$1,442,342,868
Philadelphia, PA	\$1,441,391,523
Atlanta, GA	\$1,358,920,809
Boston, MA	\$1,185,120,806
Detroit, MI	\$1,145,075,305
Seattle, WA	\$1,018,047,240
Phoenix, AZ	\$959,667,714
Sacramento, CA	\$893,473,382

# Climate Benefits of Avoided Emissions in 2050

**\$113 Billion in Climate Benefits**  
due to emission reductions in 2050

**1.5**

Billion Metric Tons  
of CO<sub>2</sub>e



# POLICY RECOMMENDATIONS

*“Designate zero emission infrastructure a national priority program...”*

Federal  
Agencies

State  
Agencies

*“Invest in publicly available charging infrastructure...”*

Actions

*“Support affordable zero-emission infrastructure readiness...”*

Local  
Agencies

Individuals

*“...engage with local ride- and-drive events to get a first-hand experience...”*

# Resources

- [Lung.org/ev](https://Lung.org/ev)
- Regional Fact Sheets
- Report Document
- Technical Report



## The Road to Clean Air

Benefits of a Nationwide Transition to Electric Vehicles



## The Road to Clean Air

Benefits of a Nationwide Transition to Electric Vehicles

### Fact Sheet: Northwestern States

The American Lung Association's "The Road to Clean Air" report highlights major health and climate change benefits possible through a shift away from polluting vehicles toward electric cars, buses and trucks. The transportation sector is a leading contributor to the public health threats of climate change and air pollution in the United States.

The transition to electric vehicles powered by increasing levels of zero-emission energy sources would benefit residents across the United States, and especially those most burdened by nearby highways, truck and bus routes, ports, warehouses and other transportation hubs.

Nationally, electric vehicle usage could yield up to \$72 billion in avoided health costs and \$113 billion in avoided climate change impacts in 2050, when compared with a fleet of combustion vehicles.

**In the Northwestern States,**  
2050 emission reduction benefits reach:

- **\$2.1 billion** in avoided health costs
- **185** avoided premature deaths
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Read more at: [Lung.org/ev](https://Lung.org/ev)  
For more information, please contact:  
[William.Barrett@Lung.org](mailto:William.Barrett@Lung.org)  
916-585-7663

### Northwest States Total 2050 State Health Benefit

State	Total 2050 State Health Benefit (Millions)
Idaho	\$194
Montana	\$205
Oregon	\$305
Washington	\$1,424
Wyoming	\$47

### Northwestern Metropolitan Areas Total 2050 Health Benefit

Metropolitan Area	Total 2050 Health Benefit (Billions)
Portland, OR	\$0.4
Seattle, WA	\$1.0

Note: Metropolitan Areas can cross state borders, and include counties identified within Combined Statistical Areas as defined by Office of Management and Budget.



## Health Benefits of Transition to Zero Emission Transportation Technologies

September 2, 2020

ICF proprietary and confidential. Do not copy, distribute, or disclose.



Call to Action online at [www.lung.org/ev](http://www.lung.org/ev)

## Sign Our Petition to Support the Transition to Electric Vehicles

Tell state governors to protect healthy air and support transportation electrification



## Help protect healthy air today. Sign our petition supporting Transportation Electrification

Air pollution from transportation harms our health – especially our lung health – and contributes to climate change – threatening our future. It is time for states to take necessary steps to move beyond burning fossil fuels by investing in a transition to electric transportation today.

Please sign our petition to call on your Governor to set the course for transportation and clean power solutions that don't pollute our air, endanger our health or jeopardize our children's future. We can't afford another generation suffering from health issues as a result of traffic exhaust. It is essential to implement clean energy solutions immediately to prevent needless harm to public health.





# Electric Carsharing

Climate Leaders Live: Our Health, Our Climate

October, 8, 2020



# Puget Sound Clean Air Agency

## Our Mission

We work to protect public health, improve air quality, and reduce our region's contribution to climate change.

## Our Jurisdiction





# Barriers to Electric Vehicle Adoption

Unequal access to technology:

- Higher upfront costs
- Lack of home charging infrastructure
- Unfamiliar with electric vehicles







# Carsharing

- Short-term car rentals with a company (Zipcar) or individual (Turo)
- One-way or round trip

## Benefits:

- Reduces vehicle miles traveled and greenhouse gas emissions by up to 43%
- Eliminates 9 - 13 vehicles off the road
- Saves households \$154 - \$435



# South Park Carshare

- Neighborhood impacted by transportation pollution
- Study identified South Park as best location for a carshare program
- Partnering with Villa Comunitaria
- Community-owned model







# Recommendations

- Conduct a transportation needs assessment
- Collaborate with community
- Invest in education and outreach
- Be flexible and creative





# Questions?

Angela Song

- Air Resource Specialist
- [AngelaS@pscleanair.gov](mailto:AngelaS@pscleanair.gov)
- 206-689-4016



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## **Diesel Particulate Pollution- Effects On Climate And Human Health**

Jamie Pang (South)  
Oregon Environmental Council  
Environmental Health Program Director  
[JamieP@OECONline.org](mailto:JamieP@OECONline.org)



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## Who is Oregon Environmental Council?

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Founded in 1968, OEC is a nonprofit, non-partisan, membership-based organization.

We ring Oregonians together to work for clean water and air, a stable climate, and healthy communities.

We forward impactful, lasting solutions that get at the source of Oregon's environmental problems.

We work at the intersection of human health and the environment.

*Our mission:*

*Oregon Environmental Council advances innovative, collaborative and equitable solutions to Oregon's environmental challenges for today and future generations.*



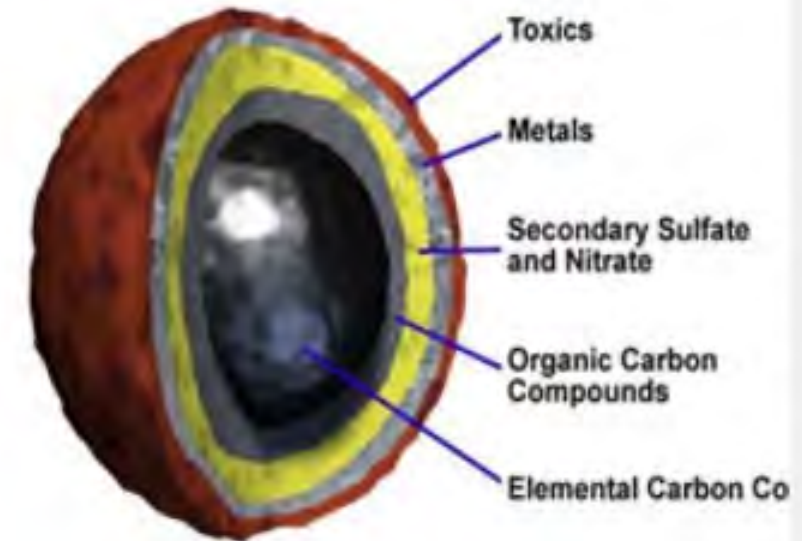




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## What is diesel?

- **Diesel exhaust** is a combination of gases and particulate matter produced during the incomplete combustion of diesel fuel.
- The particle's core is comprised of black carbon (70%).
- A diesel particle can contain up to 40 hazardous substances, including fine particulate matter (PM 2.5), toxic gases such as formaldehyde and benzene.



Black carbon makes up the core of a diesel particle.

## Black Carbon- Toxic for human health and climate

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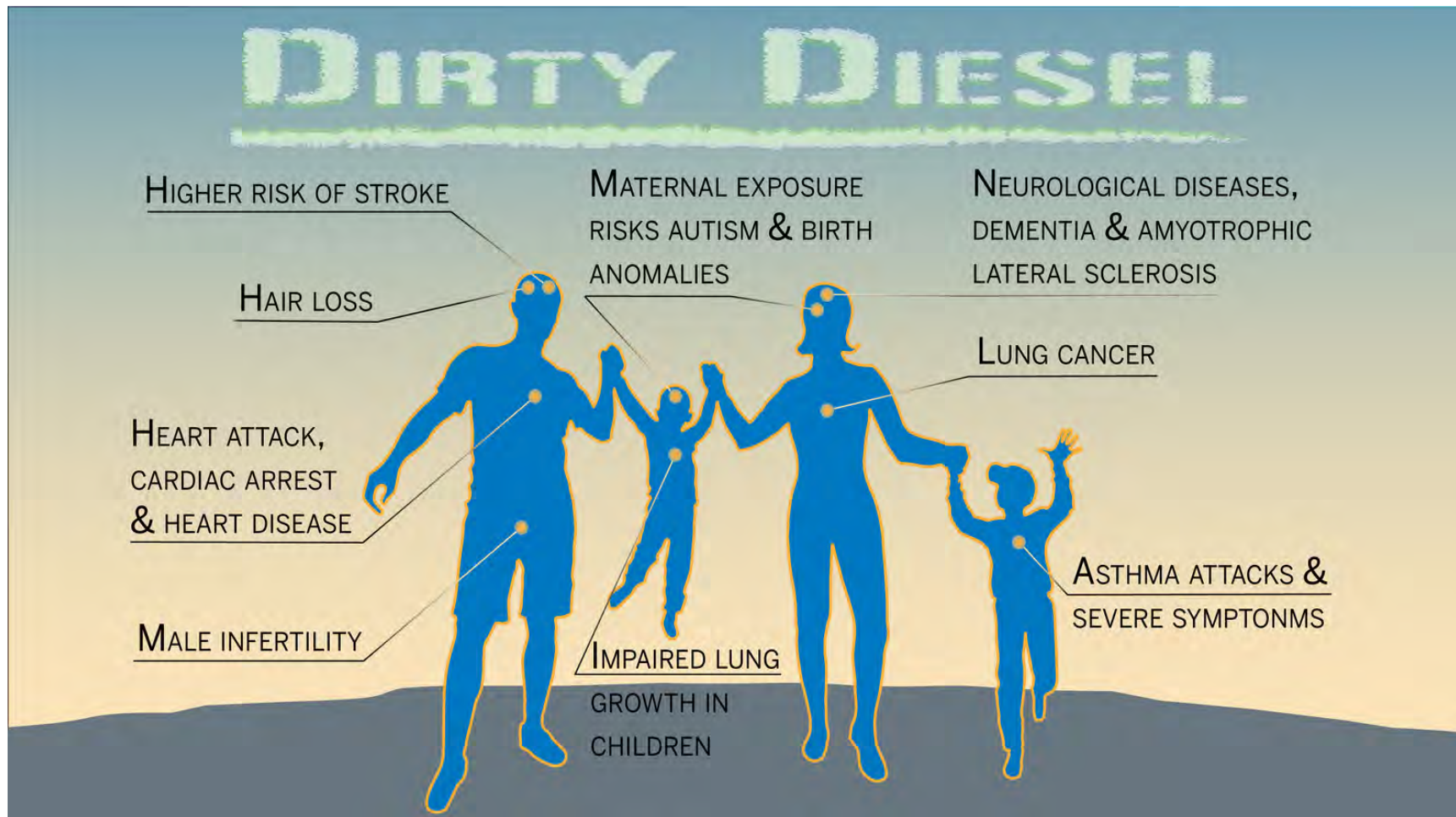
- **Health:** small particles get into the lungs, heart, and bloodstream.
- It is a potent contributor to **climate change** because it absorbs solar radiation and converts it to heat.
  - It creates powerful short term and local climate effects (e.g., accelerating glacier melt)
  - Has a warming impact on climate 460-1,500 times stronger than CO<sub>2</sub> per unit of mass.
- Measures to prevent black carbon emissions can reduce near-term warming of the climate, increase crop yields and prevent premature deaths.

(Source: <https://ccacoalition.org/en/slcps/black-carbon>)



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## Diesel Health Impacts- more harmful than we thought



Source: <https://oeconline.org/wp-content/uploads/2020/02/FINAL-2020-diesel-reportfact-sheet.pdf>



## Cost of health impacts in Oregon

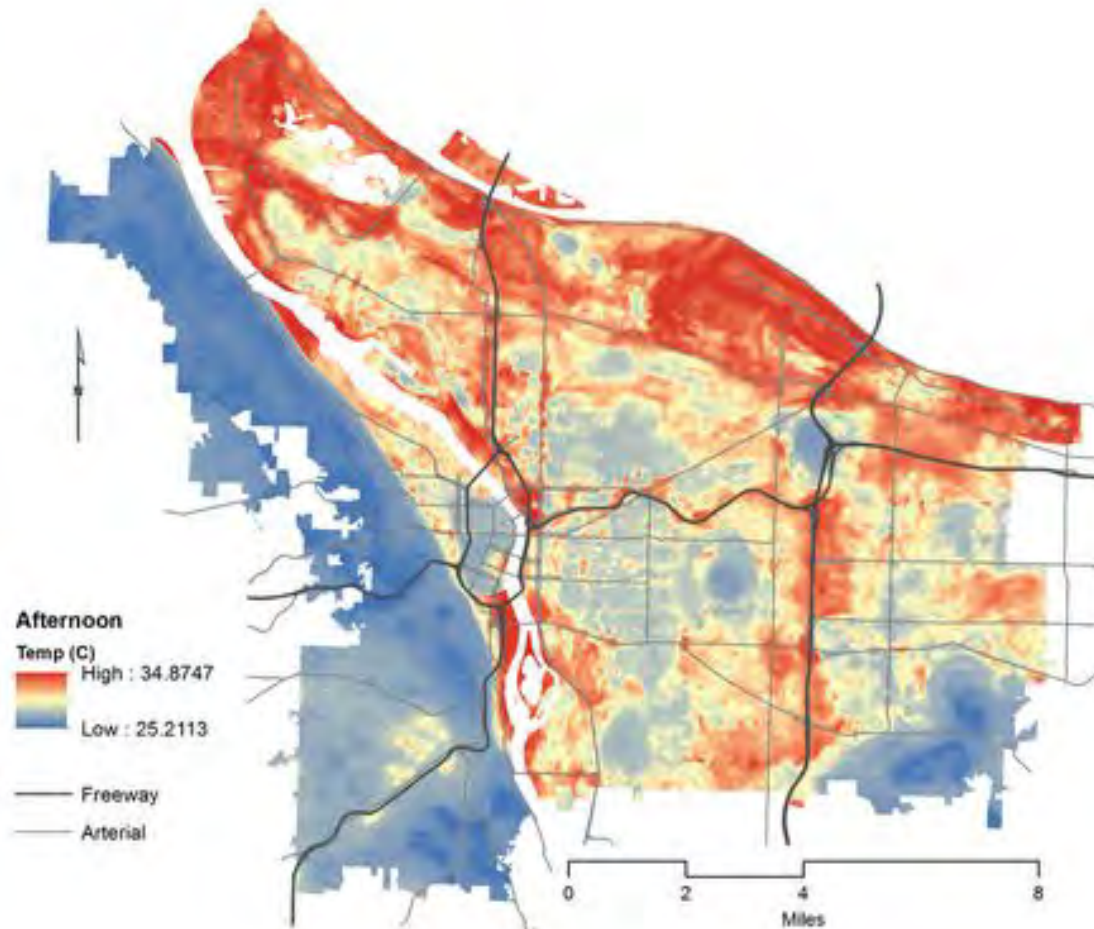
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- Multnomah county ranks 4th worst in the nation.
- Diesel exhaust prematurely kills 460 Oregonians a year.
- Costs the state \$3.5B, every year.

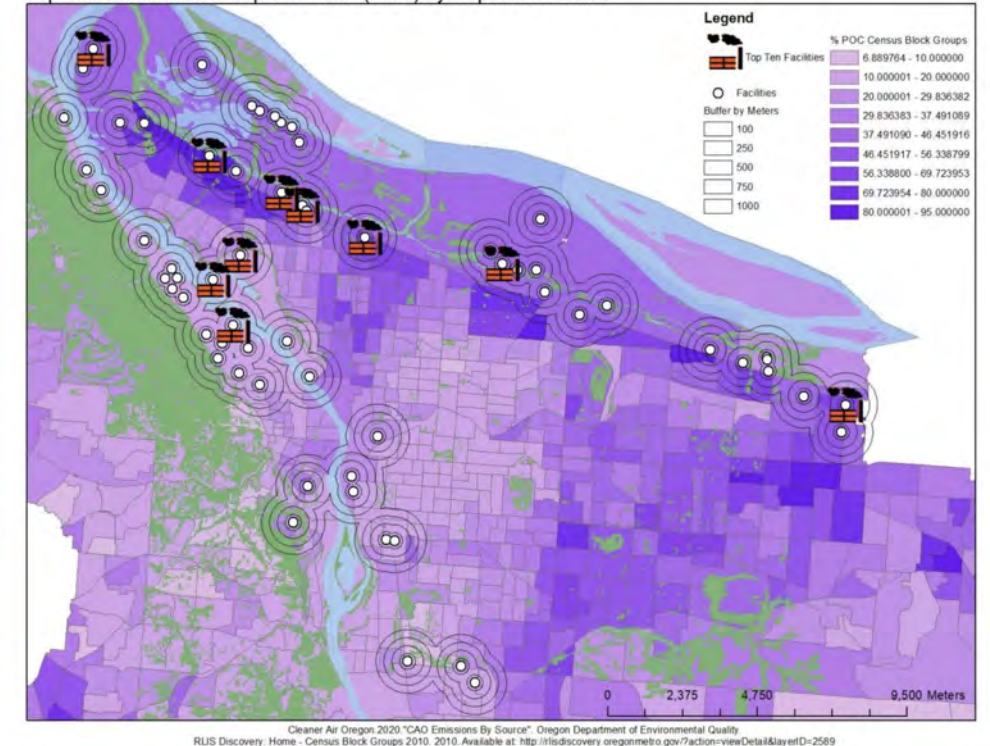
Source: 2016 OEC Dirt on Diesel Report; DEQ, *Concerns About Diesel Engine Exhaust* (revised 2015) at p. 7, available at <https://www.oregon.gov/deq/FilterDocs/DieselEffectsReport.pdf>.

# Disproportionate health and climate burdens



<https://www.oregonlive.com/environment/2020/01/historically-racist-housing-policies-exacerbating-climate-change-effects-in-low-income-portland-neighborhoods.html>

Top 10 Facilities and People of Color (POC) by Population Share



<https://www.opb.org/news/article/oregon-portland-study-people-of-color-polluted-neighborhoods-redlining-covid-19/>





# Today's Challenges Tomorrow's Oregon

Credit: Fred Joe Photo

**TOXIC-FREE ENVIRONMENTS**



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## Reducing Diesel Emissions: Many Solutions!

- Reducing diesel use is best for climate and health. The key tool is promoting **transportation electrification**:
  - CA just set a new zero emissions targets for trucks (called **the Clean Truck Rule**): WA and OR can do and should adopt similar rules
  - Utilities should invest in more charging infrastructure.
  - States, transit agencies, school districts should electrify fleets.
- Cities can **limit idling** in areas such as parking lots and construction sites.
- States can choose to **regulate emissions from off-road vehicles** such as construction equipment within a specific boundary, such as parking lots, harbors, and constructions sites.

### Oregon opportunities, agency rulemakings:

- Diesel engine retrofits/phase out (HB 2007, 2<sup>nd</sup> strongest rules in the nation)
- Oregon clean fuels program – amping up electrification

**Sign up for our action alerts!**

<https://oeconline.org/take-action/>

<https://www.climatesolutions.org/take-action/signup>



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**Thank you!**

**Questions**







# ***CLIMATE LEADERS LIVE!***

Thanks for joining us! Next month we'll be talking about

## **WA Legislative Preview: What's next in 2021?**

**[www.climatesolutions.org/events](http://www.climatesolutions.org/events)**





Please Join WPSR for a Presentation by renowned  
WA Economist, Dr. Dick Conway

## **WASHINGTON STATE AND LOCAL TAX SYSTEM: DYSFUNCTION & REFORM**

**Oct. 13th, 6:00-7:30 PM**

**[Register Here!](#)**



**October 13, 2020 at 6:00—7:30**

WPSR's Economic Inequity & Health program presents Dr. Dick Conway to speak about Washington's regressive tax system and the reforms needed to create a more equitable tax code in our state.

**[bit.ly/wpsr\\_oct13](https://bit.ly/wpsr_oct13)**







# TRANSIT FUNDING IS TRANSIT EQUITY

A #TRANSITCHAT SERIES

**Chat #2: Transit on your Ballot | October 20, 2020. 2:00 – 3:00 pm PST**

**A look at transit measures on the November ballot in three major West Coast cities: The Yes for Transit campaign in Seattle, Let's Get Moving campaign in the Portland Metro region, and the Rescue Caltrain Yes on RR campaign in the Bay Area.**

**[transportationchoices.org/transit-chat-series-transit-funding-is-transit-equity/](https://transportationchoices.org/transit-chat-series-transit-funding-is-transit-equity/)**

