

# Environmental Quality Commission meeting

## Reducing Diesel Engine Emissions In Oregon

Agenda Item L, Informational Item  
Jan. 22, 2021

# Agenda Topics

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- **Review of July 2020 briefing** (5 minutes)
- **Legal authorities** (10 minutes)
- **Existing programs and policies** (10 minutes)
- **Panel discussion** (60 minutes)
- **Challenges and opportunities** (5 minutes)
- **Diesel Strategy** (20 minutes)
- **Commissioner reflections** (10 minutes)

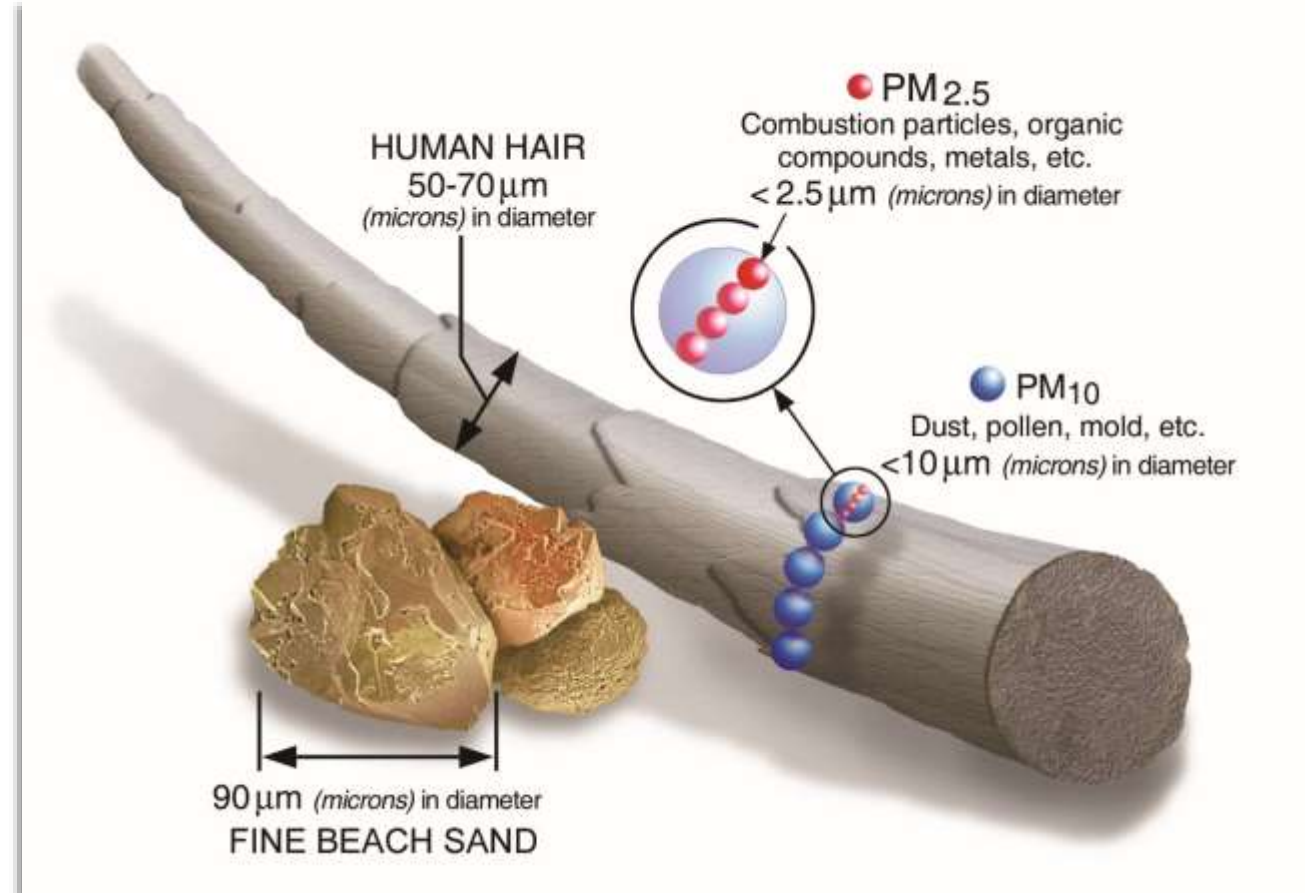
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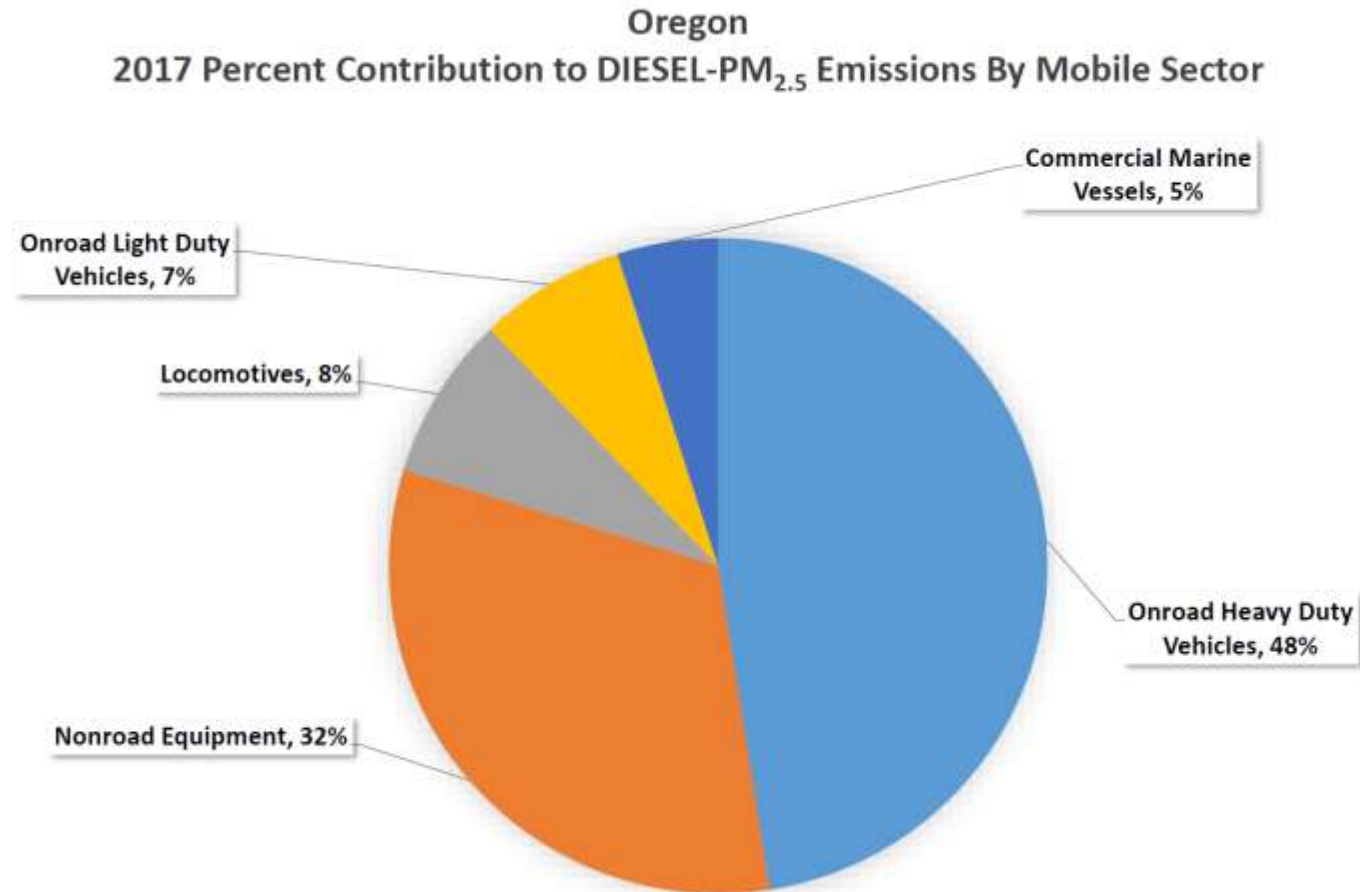
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# Health Effects of Diesel Particulate Matter

- Increased risk of certain cancers; including lung and bladder cancers.
- Cardiovascular effects including an increased risk of heart attacks.
- Pulmonary effects, such as upper respiratory system irritation and decreased lung functions.
- Neurodevelopmental and prenatal effects including decreased cognitive function and decreased birthweight.

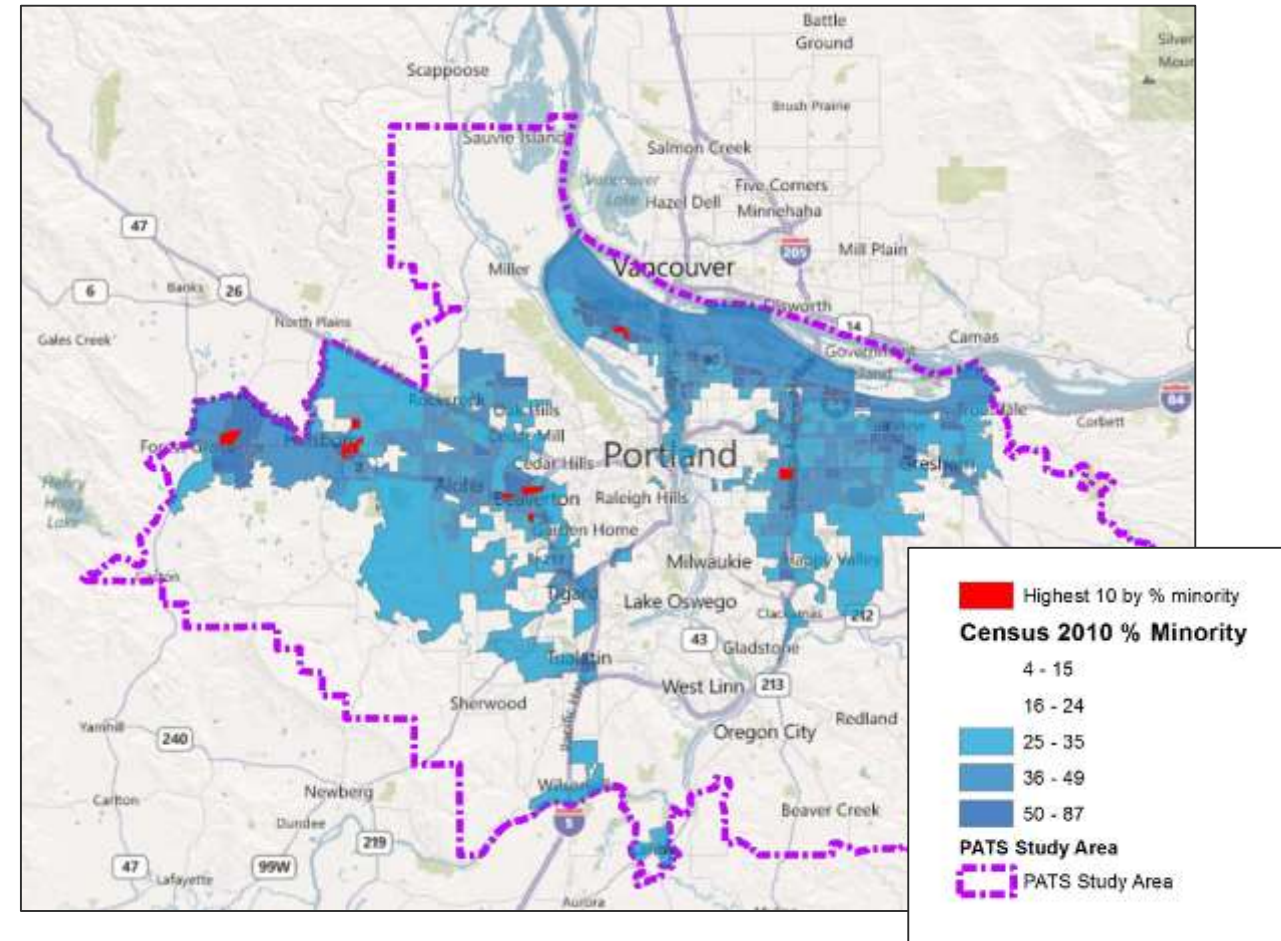
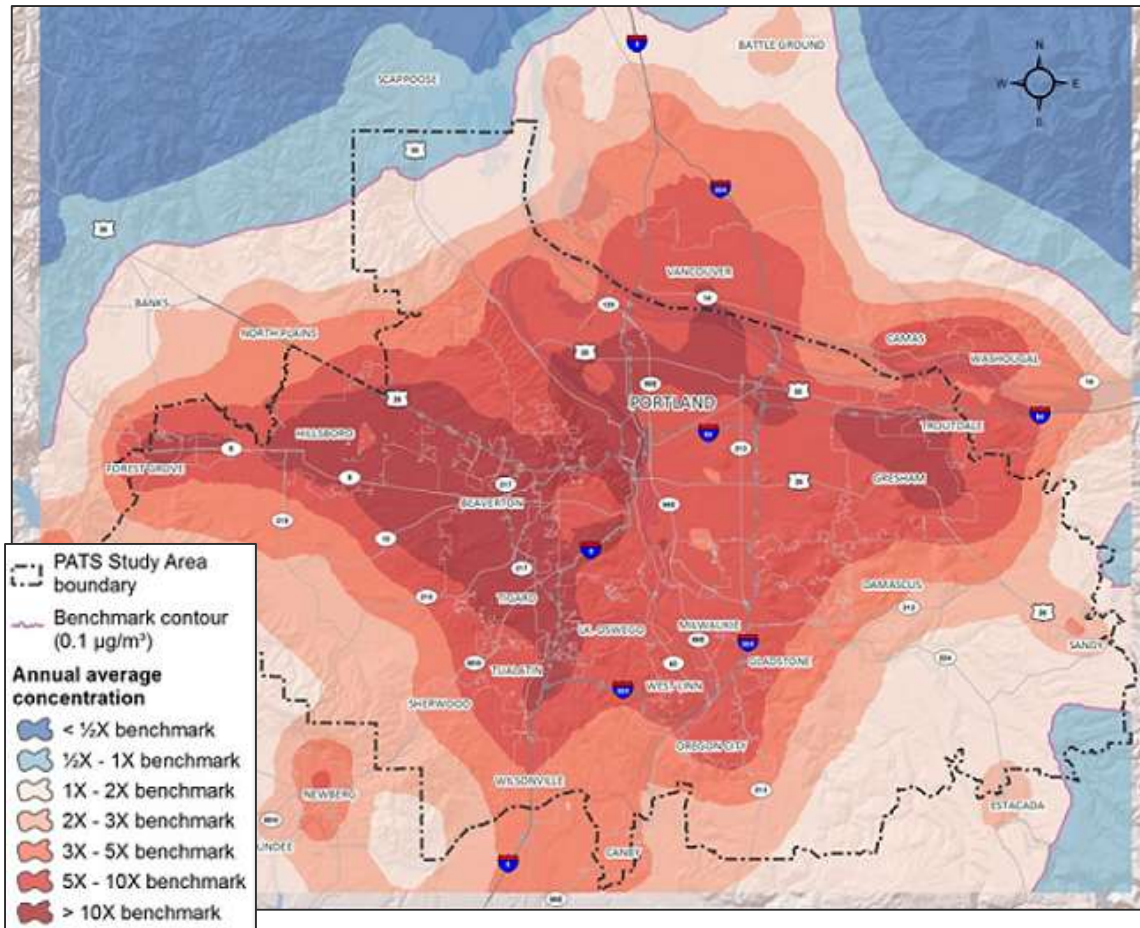


# Sources of Diesel Particulate Matter





# Diesel Exhaust and Environmental Justice



# Key Takeaways

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- Diesel engine exhaust contributes to a wide-variety of health and environmental problems
- The major sources of diesel emissions are medium-duty and heavy duty trucks, and nonroad equipment such as construction and agriculture machinery
- While newer engines are cleaner-burning, Oregon has a substantial fleet of older, high-emitting equipment still in use
- The use of diesel engines – and as a result diesel emissions – is ubiquitous
- Some communities experience much higher levels of diesel pollution than others

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# Legal Authorities – Key concepts

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## Key concepts

- Emissions standards
- Onroad versus nonroad
- New versus in-use

## EQC Authorities

- **ORS 468A.025:** Authority to establish emissions standards for any source of air contaminant emissions, including nonroad engines and indirect sources
- **ORS 468A.020:** Prohibits EQC from regulating equipment used in agriculture operations
- **ORS 468A.360:** Authority to establish motor vehicle emission standards

# Legal Authorities – Onroad trucks

Emissions standards for <u>new</u> engines	Emissions standards for <u>in-use</u> engines
 <p>Oregon cannot establish <b>emission standards</b> for new onroad engines (motor vehicles) – <b>except when adopting California standards.</b></p>	 <p>Oregon may adopt <b>emission standards</b> for in-use onroad engines.</p>

# Legal Authorities – Nonroad engines

## Emissions standard for new engines



No state can establish standards for:

- Locomotive engines
- Nonroad engines used in farm or construction equipment that are under 175 horsepower



For all other new nonroad engines, **Oregon cannot establish emission standards – except when adopting California standards.**

## Emissions standards for in-use engines



Oregon cannot establish emission standards for in-use nonroad engines – **except when adopting California standards**

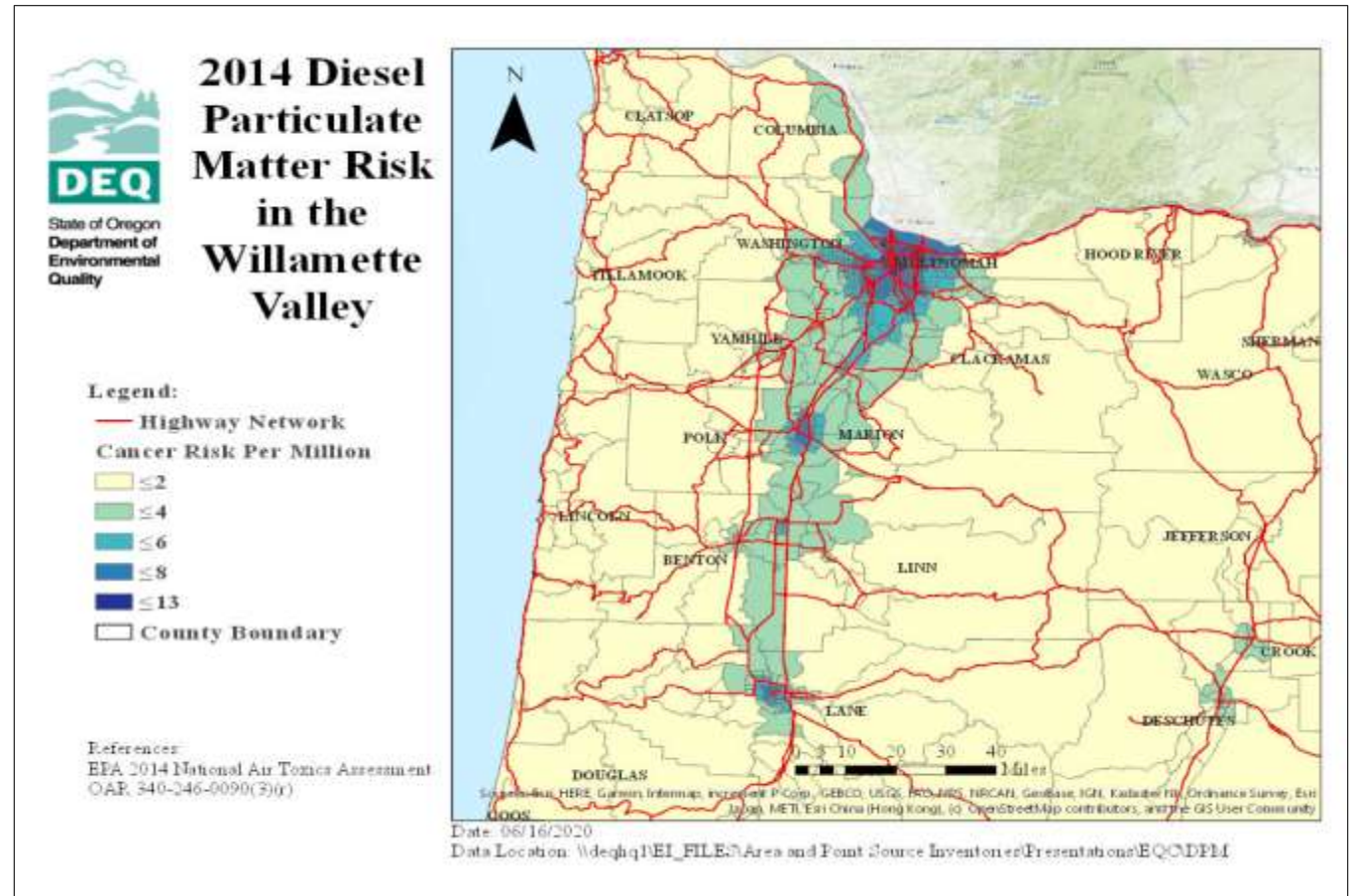
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# Research and evaluation

- Improving exposure assessment for vulnerable communities
- Nonroad diesel engine inventory
- Emissions inventory and risk modeling



# Incentive programs

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## Diesel Emissions Reduction Act

- ~\$800K/biennium

## Congestion Mitigation and Air Quality

- \$500K/biennium

## VW School Bus Program

- ~\$20 million total

# Rules and regulations

- Vehicle Inspection Program
- Clean Fuels Program
- Stationary Source Regulations
- Restrictions on Idling





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# Panel Discussion

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## Panelists

- **Amy Schlusser**, Green Energy Institute
- **David Breen**, Port of Portland
- **Dennis McLerran**, Cascadia Law Group

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# Challenges

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- Legal constraints
- Agency funding and resources
- Cost to treat older engines
- Data limitations
- Backsliding and leakage
- Excess emissions from tampering

# Opportunities

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- Centering environmental justice
- Advances in technology
- Reducing greenhouse gas emissions *and* tailpipe pollution
- New and emerging studies
- 2021 legislative session
- New federal administration

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# Diesel strategy

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- 1 Replace and retire the oldest diesel engines
- 2 Adopt new and cleaner technologies
- 3 Support owners and operators transition their fleets



# Replace and retire the oldest engines

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- Medium- and heavy-duty truck phase out requirements rulemaking
- Clean diesel construction standards for major public works projects
- Voluntary emissions labeling program rulemaking
- Backup diesel generator General Permit update

# Adopt newer and cleaner technologies

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- Medium and heavy-duty ZEV MOU
- Advanced Clean Truck rulemaking
- Low-NOx rulemaking
- Truck alternative fuels study
- Clean Fuels Program electricity rulemaking
- Expanding clean fuels and health impacts study

# Support owners and operators transition their fleet

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- Volkswagen grant program rulemaking
- Joint Legislative Task Force On Supporting Businesses in Reducing Diesel Emissions

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# Questions

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