

Fossil Fuel Risk Bonds

EUGENE CITY COUNCIL WORK SESSION

MAY 10, 2023



1

Related Council Work Sessions

- Chronic Polluters (May 2022)
- Public Health Overlay Zone (September 2022)
- Gas Stations (TBD)



2

2

Overview

- Fossil Fuel Risk Bond (FFRB) Overview
 - Basis
 - Program Elements
 - Financial Assurance Instruments
 - Implementation Phases
- FRRB Case Studies
 - King County, WA
 - CEI Hub - Multnomah County / City of Portland
- DEQ - SB 1567 – Oil Terminal Seismic Vulnerability Assessments



3

3

What is a FFRB Program

“a systematic effort by state or local governments to evaluate and respond to the financial risks potentially faced at each stage of the fossil fuel product life cycle in their jurisdictions”

- Center for Sustainable Economy



4

4

Rationale for FFRB Program

Point Source Risk

- Costs of localized pollution
- Costs of accidents/crashes/localized spills
- Costs of future brownfields or abandonment

Nonpoint Source Risk

- Non-localized water and air pollution
- Climate-related impacts
- Infrastructure stress



5

5

FFRB Program Elements

Approach 1: Conventional Financial Assurance Instruments

- Instruments already in use by local, state, federal governments
- Use best available science to model events and costs
- Require to be in place to provide financial assurances for “worst-case” pollution release events or abandonment



6

6

Conventional Financial Assurance Instruments

Instruments in use under DEQ programs and in City contracting

- Trust Fund
- Surety Bond
- Irrevocable Letter of Credit
- Insurance Policy
- Insured Savings Account or Negotiable Securities
- Corporate Guarantee / Financial Test



7

7

FFRB Program Elements

Approach 2: Surcharge-based Trust Funds

- Based on estimate of projected cost of nonpoint source risk (cumulative risk)
- Trust fund capitalized through a surcharge assessed on infrastructure or operations
- Fee deposited into a trust fund to be used for mitigation, adaptation and cumulative pollutant impacts



8

8

FFRB Implementation Stages

Stage 1: Risk assessment and gap analysis

- Inventory of fossil fuel infrastructure
- Analysis of existing policy and regulatory frameworks
- Analysis of “worst-case” scenarios
- Assessment of potential financial impact
- Inventory of existing financial assurance mechanisms relevant to infrastructure

Stage 2: Implementation

- Adoption of a regulatory program
- Put in place financial assurance requirements



9

9

FFRB Case Study – King County (WA)

Background:

- 2019 amendments to County Comprehensive Plan and development regulations to address the risks and potential impacts associated with fossil fuel facilities
- Understand types of fossil fuel facilities that can be developed in unincorporated King County under its permitting jurisdiction
- Focus on new or expansion of existing major fossil fuel facilities
- Ensure protection of public health and safety and environment from the impacts of fossil fuel infrastructure



10

10

FFRB Case Study – King County (WA)

FFRB assessment and implementation

- Phase 1: 2019 ordinance to commence risk assessment
- Phase 2: Assessment of risks and costs / Gap analysis / Policy & code recommendations
- Phase 3: 2023 ordinance requiring permit applicants for fossil infrastructure not otherwise covered by existing policy or code to provide financial assurances



11

11

FFRB Case Study – King County (WA)

Key Risk and Cost Assessment Findings

- Primary financial risk: catastrophic events (vapor cloud explosion) and creation of new brownfields (abandonment)
- Other potential impacts – air and water pollution, oil spills – not recommended for providing proof of financial coverage
- Impacts associated with pipelines, train derailments and fuel tanker spills not evaluated by County
- Natural hazard risk fund (surcharge-based risk trust fund) not recommended for implementation



12

12

FFRB Case Study – CEI Hub Assessment

Purpose and Scope

- Interest by City of Portland and Multnomah County to better understand risk from infrastructure at the CEI Hub due to a Cascadia event
- Jointly commissioned a study to:
 - Build on a decade of prior CEI Hub seismic studies
 - Characterize and quantify the anticipated damages from the CEI Hub due to a large seismic event
 - Estimate economic risks of catastrophic spill
 - Identify what costs might be covered by existing insurance or federal programs



13

13

FFRB Case Study – CEI Hub Assessment

Key Assessment Findings

- A mega-earthquake could result in tanks at CEI Hub releasing up to 194 million gallons of fossil fuels and cause up to \$2.6 billion in damages
- DEQ, ODOE, OSFM have powers not delegated to local governments, local government tools to mitigate risk may have limits
- Nearly all categories of damages identified in the assessment potentially recoverable under Federal Oil Pollution Act (OPA)
- Assessment did not include damages or hazards posted by accidents or spills not directly related to a seismic event posed by the infrastructure storing and carrying product to and from the CEI Hub



14

14

SB 1567: Fuel Tank Seismic Stability

Rulemaking Focus

- Comprehensive Seismic Vulnerability Assessments
- Seismic Risk Mitigation Implementation Plan
- Rules Advisory Committee
- Applies to owners and operators of bulk oils and liquid fuels terminals or industrial facilities with at least 2-million-gallon fuel storage capacity located in Columbia, Multnomah and Lane counties
 - 1 facility in Lane County covered by rules, Kinder Morgan



15

15

Questions / Discussion



16

16