



ARCHES Pipeline RFI

Information Session 7/7/25 via Zoom



Introduction and Agenda

What is ARCHES

- Public-private partnership accelerating hydrogen adoption
- A true end-to-end Hub model focused on renewable production, distribution, and offtake in the California region and providing a model for America's clean hydrogen ecosystem and market creation
- Founding members: California Governor's Office of Business and Economic Development (GO-Biz), the University of California system, the State Building and Construction Trades Council of California, Renewables 100 Policy Institute

Agenda

- RFI Overview and Objectives
- Pipeline Development and Focus Areas
- Information Categories & Questions
- Submission Requirements and Timeline
- Q&A session



RFI Vision

Key RFI Objective

Design and build out an integrated network of 100% hydrogen-capable pipelines, similar to the current natural gas distribution system

Key Pipeline Applications

- Small, local pipelines connecting neighboring projects
- Large-scale supply pipelines for major demand centers
- Aggregation pipelines consolidating multiple producers
- Long-range distribution networks
- Connections to geologic storage (both in-state and out-of-state)



Pipelines are Important

Economic Benefits

- Most economical way to move large volumes of hydrogen
- Enable demand aggregation across multiple producers
- Support central liquefaction and distribution locations

Strategic Advantages

- Open-access/common-carrier model
- Integration with large-scale geologic storage
- Infrastructure foundation for market liftoff and future demand

Core Principles

- Safe operation with minimal leakage
- Comprehensive monitoring systems
- Open access to the network



Key Challenges

Constraints

- Economic: cost-effective deployment and financing
- Geographic: terrain and routing considerations
- Regulatory: Compliance and permitting frameworks
- Land Use: rights of way and community engagement

Our Approach

- Comprehensive ecosystem analysis
- Stakeholder input and collaboration
- Long-term resilience planning
- Market-driven solutions



Who We Hope Provides Input

Primary Audience

- **Pipeline developers** and operators
- **Potential pipeline users** across the hydrogen value chain
- Organizations with pipeline development experience
- Companies in California and beyond

Ecosystem Segments

- Upstream: Hydrogen Production
- Midstream: Transportation and Distribution
- Downstream: End-use Applications



Response Information

1. General Respondent Information

- Company/organization contact
- Hydrogen ecosystem segment
- Pipeline development experience
- Current operations and expansion opportunities

2. Pipeline Development

- Cost projections and capacity commitments
- Environmental and local impacts
- Standards and connectivity requirements
- Integration opportunities

3. Organization-Specific Pipeline Concepts

- Technology and concept details
- Technology readiness levels (TRLs) and deployment
- Timeframes and financing approaches
- Safety and leak detection systems

4. ARCHES Pipeline Strategy Input

- Transmission vs. end-use pipeline focus
- Development timeframes and regional priorities
- Standards and blending strategies

- Liquefaction and interconnectivity considerations

5. Pipeline Operation

- Cost reduction strategies
- Regulatory framework needs
- Financing approaches
- Ownership and operation models

6. Additional Considerations

- Open field for any other relevant insights
- Unique opportunities or challenges
- Strategic recommendations



Key Strategic Questions We're Exploring

Focus Areas

- Should ARCHES prioritize transmission vs. end-use pipelines?
- What timeframes should guide our development strategy?
- Which regions/segments are most critical?
- What pipeline standards should we establish?

Blending Strategy

- Is natural gas blending viable, and at what percentages?
- What is an appropriate timeline for reaching 100% hydrogen capability?
- How do we ensure pathways to pure hydrogen systems?



Innovative Concepts We're Considering

Aggregation Strategy

- Combining pipeline segments from different companies
- Ensuring complete pathways with existing rights of way
- Addressing potential concerns and challenges

Alternative Carriers

- Moving ammonia, methanol, formate, or other hydrogen carriers
- Evaluating multi-purpose pipeline concepts

Liquefaction Integration

- Dedicated supply to liquefaction facilities
- Connection to refueling stations and end-uses



Submission Requirements

Format Requirements

- Microsoft word (.docx) or Adobe PDF (.pdf)
- Maximum 15 pages
- 12-point font, 1-inch margins
- Organization name, address, and contact information on the first page

Content Guidelines

- Answer as many or as few questions as desired
- Clearly label section, subsection, and question numbers
- Focus on areas of expertise and interest



Submission Requirements

Key Dates

- **RFI Released:** June 25, 2025
- **Information Session:** July 7, 2025 (1:30-2:30pm PDT)
- **Responses Due:** August 15, 2025 (5:00pm PDT)

Submission Process

- Submit via Box link (to be provided)
- Questions? Email strategy@arches.org



Important Legal Considerations

California Public Records Act

- Responses may be subject to public records requests
- Mark confidential information clearly and conspicuously
- 5-business-day notification before any disclosure
- Good faith protection of confidential information

RFI Nature

- **This is not a request for proposals or a funding opportunity**
- Information will be used for planning and strategy development
- Participation confers no advantage/disadvantage for future funding opportunities
- No reimbursement for response costs



How Your Input Will Be Used

Strategic Planning

- Inform ARCHES Hydrogen Pipeline Development Strategy
- Guide future project possibilities
- Support funding allocation decisions

Aggregated Analysis

- Information used on non-attribution basis
- Comprehensive ecosystem perspective
- Market-driven approach development

No Binding Commitments

- Responses treated as information only
- No obligation for ARCHES follow-up
- Potential for follow-up conversations on pipeline concepts



Questions & Discussion

Questions? Email strategy@arches.org

Today's Discussion

- Pipeline development challenges and opportunities
- Technology and concept clarifications
- Strategic direction input
- Submission process questions

Next Steps

- Review RFI document thoroughly
- Prepare your organization's response
- Submit by August 15, 2025 deadline