# Interstate Oil and Gas Compact Commission

## 2021 Knowledge-Sharing Project Update

### Energy Resources, Research and Technology Committee

**Kaitlyn Smith, Regulatory Technical Liaison Intern**

**May 17, 2021**

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# Agenda

- History of Knowledge-Sharing Project
- Mission of the Knowledge-Sharing Project
- Process of Updating Portal for 2021
- Live 2021 Portal
- 2021 SPE Webinar Series

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# History of Knowledge-Sharing Project

**2016**

- ERRT surveyed regulators on regulatory adaptations to emerging oil and gas technologies
- Regulators need new, now, and next information on topics of interest from industry experts and technical societies

**2018**

- ERRT started surveying regulators about top technical issues of concern
- Established connections with technical societies
- Shared key topics with societies to assist with compiling technical content

**2019**

- ERRT launched the portal on IOGCC's website containing both public and regulator-only resources on the surveyed technical issues

**2020**

- ERRT portal was refreshed throughout the year
- Improved portal awareness and expanded network of technical societies
- ERRT held a series of webinars

**2021**

- The 2021 portal is live
- Material will be uploaded throughout the year from technical societies
- Upcoming four-part webinar series with SPE/IOGCC/EDF

# Mission of the Knowledge-Sharing Project

- Identify regulators' technical issues of concern and compile responsive technical information
- Establish a two-way communication process between IOGCC regulators and technical societies
- Assist regulators' awareness and responsiveness to the evolving technical and operational industry practices

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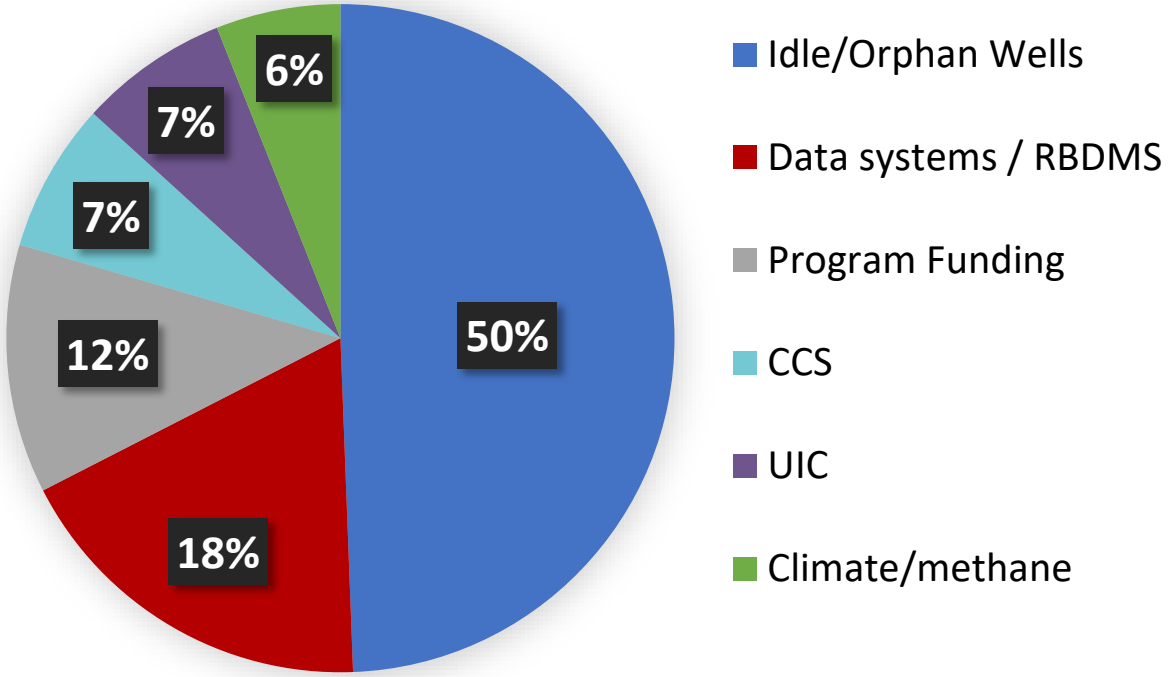
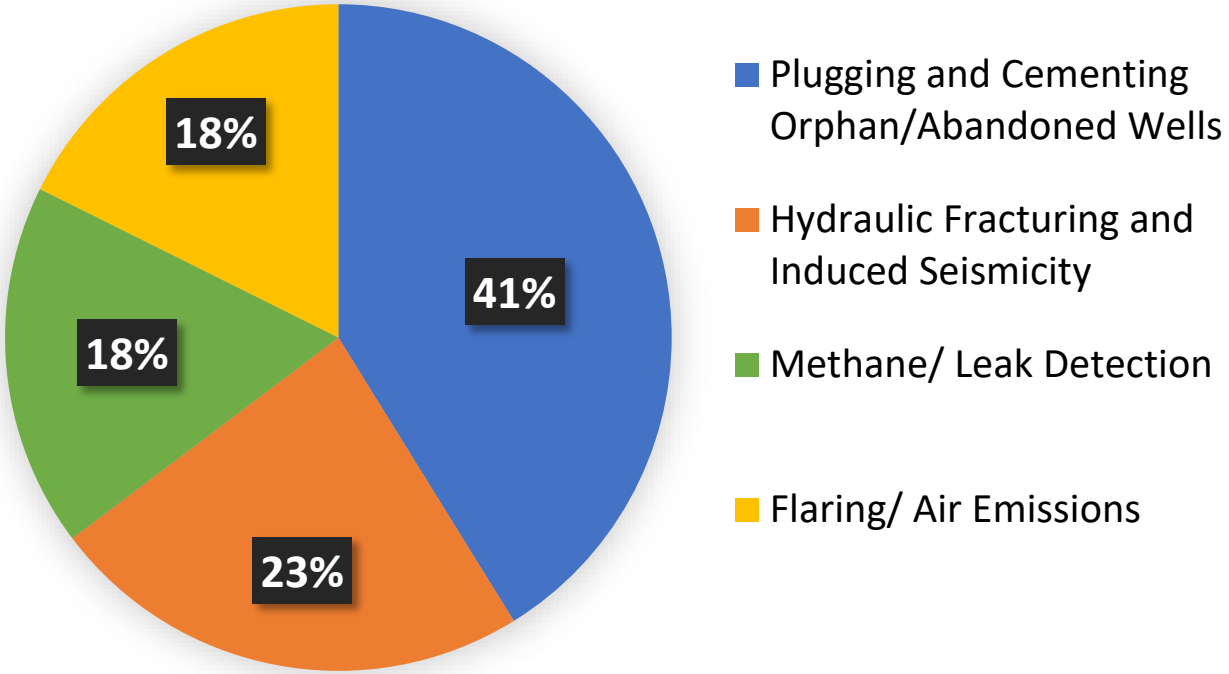
# Process of Updating Portal for 2021

## CRO Summer and Fall Results 2020




## Survey Results 2020



# Process of Updating Portal for 2021

## 2021 Technical Topics

1. Plugging and Remediating Orphan Wells and Sites
   - Locating and Assessing Orphan Wells and Restoring Sites and Habitats
   - Plugging and Cementing Technologies and Procedures
2. Venting and Flaring
   - Methane Detection and Flaring Reduction Technologies
   - Beneficial Uses of Flared Gas
3. EOR/Hydrogen
   - Effect of $CO_2$ on Down Hole Equipment
   - Hydrogen production, transportation, and storage
4. Hydraulic Fracturing/Completions
   - Proactive Techniques for Mitigating Induced Seismicity
   - Simultaneous Fracs and Frac Hits

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# Process of Updating Portal for 2021

- Reached out to technical societies on material for the Knowledge-Sharing Project
  - Three avenues of participation
    1. Provision of articles, papers, and conferences
    2. Recruiting subject matter experts (SMEs) to be readily accessible to answers regulator questions
    3. Development of webinars for topics of concern
- Archived 2020 portal and published the new material

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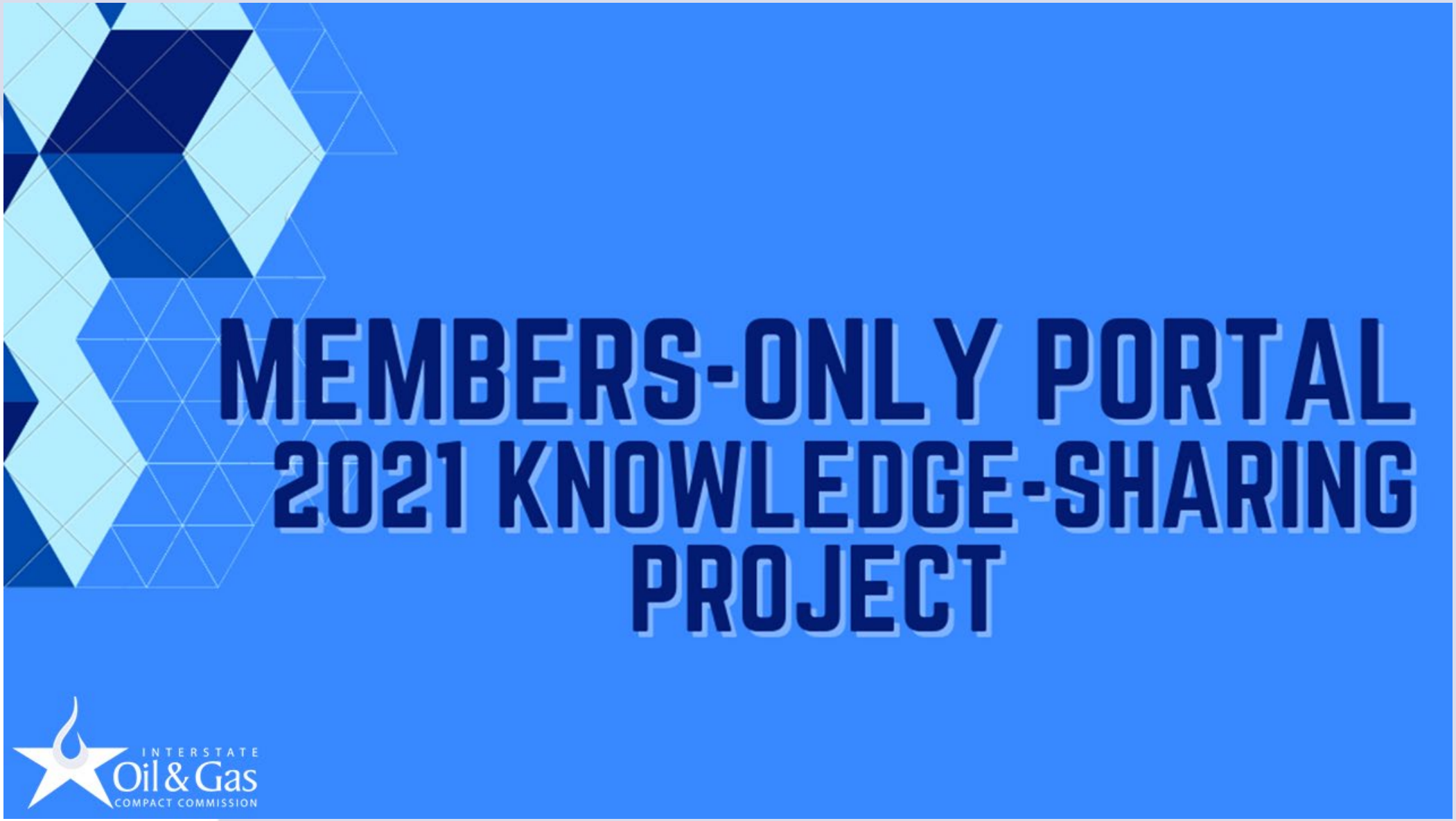
# 2021 Portal – Now Live!



# 2021 Technical Society Connections

Society of Petroleum Engineers

American Association of Petroleum Geologists

American Association of Drilling Engineers

Society of Exploration Geophysicists

American Association for the Advancement of Science

Department of Energy

American Petroleum Institute

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# Most Requested Technical Topic

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## Cementing Procedures for Plugging

### Articles

American Petroleum Institute, Bulletin E3 Second Edition April 2018, by API Subcommittee on Well Cements
**"Wellbore Plugging and Abandonment Practices"**

American Petroleum Institute, API New Standard 65-3, E3 **Coming Soon 2021**, by API Subcommittee
(Paper contributed by API)
"Wellbore Plugging and Abandonment"

EDP Sciences - E3S Web of Conferences 67, Article January 2018, by Muhammad Asyri and Kamarza Mulia
**"Study of Microfine Cement Use on Squeeze Cementing Operations in Plug and Abandonment Work"**

## Site and Habitat Restoration

### Articles

Wildlife Management Bulletin No.9, Article Spetember 2020, by Forrest S. Smith, Anthony D. Falk, Keith A. Pawelek, and David B. Wester
**"Native Habitat Restoration in the Eagle Ford Shale of Texas"**

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# Contributed Materials

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"Optimizing Remaining Locations: Multivariate Analysis of Fluid and Proppant Impact on Middle Bakken Parent and Child Wells - Mountrail County, North Dakota"

AAPG Databases, Paper July 2020, by Ishank Gupta, Chandra Rai, Deepak Devegowda, and Carl Sondergeld" (Paper contributed by AAPG)
"A Data-Driven Approach to Detect and Quantify the Impact of Frac-Hits on Parent and Child Wells in Unconventional Formations"

SPE Liquids-Rich Basins Conference, Paper October 2019, by Liang Xu, James Ogle, and Todd Collier
"Fracture Hit Mitigation Through Surfactant-Based Treatment Fluids in Parent Wells"

## Papers

The State Oil and Gas Regulatory Exchange, Guide March 2021, by the Induced Seismicity by Injection Working Group
**"Potential Induced Seismicity Guide: A Resource of Technical and Regulatory Considerations Associated with Fluid Injection"**

AAPG Databases, Paper November 2020, by Patrick Rutty (Paper contributed by AAPG)
**"Optimizing Remaining Locations: Multivariate Analysis of Fluid and Proppant Impact on Middle Bakken Parent and Child Wells - Mountrail County, North Dakota"**

AAPG Databases, Paper July 2020, by Ishank Gupta, Chandra Rai, Deepak Devegowda, and Carl Sondergeld" (Paper contributed by AAPG)
**"A Data-Driven Approach to Detect and Quantify the Impact of Frac-Hits on Parent and Child Wells in Unconventional Formations"**

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# Subject Matter Experts

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## Subject Matter Experts

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## Plugging and Remediating Orphan/Abandoned Wells and Sites

### Hal Fitch

President
H.R. Fitch Consulting Services, LLC
**Email: hrfitch@hrfconsulting.net**
Expertise: Orphan/Idle Wells

# Portal Going Forward

- Review upcoming CRO notes and surveys for 2022 portal
- Continue to connect with technical societies and expand their participation in the effort
- Send out quarterly emails to IOGCC-member regulators about portal updates
- Continue using Google Analytics

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# Upcoming Webinar Series

## SPE/IOGCC Webinar:

### Cost-Effective Technologies for Onshore Well Abandonment and Verification

JUNE 22, 2021 AT 11:30AM (CDT)

**This webinar will be free to IOGCC-member regulators, see website for more details.**

SPE International

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EDF ENVIRONMENTAL DEFENSE FUND® Finding the ways that work

# SPE Webinar Series

- Webinar 2: Venting and Flaring
  (July – August 2021)

- Webinar 3: CCUS/EOR/CO2
  (August – September 2021)

- Webinar 4: Hydraulic Fracturing/Completions
  (September – October 2021)

* All four webinars will be free to IOGCC-member regulators thanks to the sponsorship of EDF and IOGCC.

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# Thank you!

Questions?

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