
SENATE COMMITTEE ON NATURAL RESOURCES AND WATER

Senator Henry Stern, Chair
2021 - 2022 Regular

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Subject: Oil and gas: hazardous and idle-deserted wells and production facilities:
expenditure limitations

BACKGROUND AND EXISTING LAW

California is a major oil and gas producing state. According to the US Energy Information Administration, the state was 7th and 14th for oil and natural gas production, respectively, among the 50 states in 2020. Production of oil was about 135M barrels.

Existing law establishes the Geologic Energy Management Division (CalGEM) in the Department of Conservation. CalGEM regulates oil and gas production in the state, and CalGEM's leader is the State Oil and Gas Supervisor (supervisor).

According to data obtained from CalGEM's website, there are approximately 125,000 active and idle oil and gas wells in the state (2021 data) and related production facilities located in over 180 oil and gas fields. Of these wells, about 78,000 are active, and 47,500 are idle.

Active wells are those currently in use that either produce or inject fluids related to hydrocarbon production. Wells are often expensive to drill and to seal ("plug and abandon"). Therefore, operators may prefer to keep wells idle – sometimes for extended periods of time. Idle wells are more likely to become orphan wells. Orphan wells are deserted wells that the state has to address because no responsible operator has been found to do so. Orphan wells are likely to not be maintained consistently, and emissions from wells that fail or are failing may be hazardous to the surrounding environment, and public health and safety.

CalGEM has multiple methods – once a well and/or related production facility has been identified as orphan, deserted and/or hazardous – to fund plugging and abandonment and/or decommissioning. These include any existing and available indemnity bond or other financial surety provided by an operator covering that well or facility, seeking funds from a previous operator, as applicable, and using certain moneys available from three separate accounts.

Since 1976, CalGEM has had the authority to expend up to a certain cap moneys from the Oil, Gas, and Geothermal Administration Fund (OGGAF) on the plugging and abandonment of orphan wells and related facilities. OGGAF is funded by fees paid by oil and gas well operators based upon the amount of oil and/or natural gas they produce annually. Prior to fiscal year (FY) 2008-2009, the cap was set at \$500,000 annually. The Legislature raised the cap to \$2 million annually through FY 2014-2015 when it

reset to \$1 million annually. The cap was since raised to \$3 million annually and is due to reset to \$1 million in FY 2021-2022.

Operators pay certain fees for idle wells not covered by an idle well management plan. These fees are deposited into the Hazardous and Idle-Deserted Well Abatement Fund (HIDWAF). HIDWAF moneys can be used to plug and abandon hazardous and idle-deserted wells and decommission related production facilities. In 2019, CalGEM collected about \$4.2 million in idle well fees.

Moneys available from certain civil penalties deposited in the Oil and Gas Environmental Remediation Account (OGER Account) can also be used to plug and abandon orphan and hazardous wells, decommission related facilities, and remediate sites. The current baseline budget appropriation from the OGER Account is about \$200,000 annually.

Existing law:

- 1) Provides that the purposes of the state's oil and gas conservation laws include protecting public health and safety and environmental quality, including the reduction and mitigation of greenhouse gas emissions associated with the development of hydrocarbon and geothermal resources in a manner that meets the energy needs of the state.
 - a) The supervisor shall coordinate with other state agencies and others to further the goals of the California Global Warming Solutions Act of 2006 and to help support the state's clean energy goals. (Public Resources Code (PRC) §3011)
- 2) Directs the supervisor to so supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, as specified, so as to prevent, as far as possible, damage to life, health, property, and natural resources, as provided. (PRC §3106)
- 3) Classifies oil and gas wells based upon their use.
 - a) An idle well is a well that is not in use, and has not been in use for at least 24 consecutive months, as specified. (PRC §3008)
 - b) An idle well that has no operator or other responsible party to pay for its costs becomes an "idle-deserted" or "orphan" well, which is then the responsibility of the state to plug and abandon. (PRC §3251, §3206.3)
 - c) Long-term idle wells are those wells that have been idle for at least 8 years. (PRC §3008)
- 4) Holds the current operator, or the previous operator, as provided, of an orphan well that produced oil, gas, or other hydrocarbons or was used for injection, responsible for the proper plugging and abandonment of the well or the decommissioning of idle-deserted production facilities. (PRC §3237)

- 5) Authorizes the supervisor to order the plugging and abandonment, or decommissioning of a hazardous or idle-deserted well or facility, as specified. (PRC §3251, §3255)
- 6) Requires an operator to either file with the supervisor certain annual idle well fees per well that increase the longer the well has been idle, or file an idle well management plan with the supervisor that eliminates between 4% - 6% of the long-term idle wells each year. Failure to pay idle well fees or file a plan is sufficient evidence for the well to be considered legally deserted.
- 7) Prohibits CalGEM from expending no more than \$3 million in any one fiscal year from FY 2018 - 2019 to FY 2021-2022, inclusive, for plugging and abandoning and decommissioning hazardous and idle-deserted wells, and hazardous or deserted facilities from OGGAF.
 - a) As of FY 2022-2023, the \$3 million is reduced to \$1 million. (PRC §3258).
- 8) Establishes the OGER Account in OGGAF to be administered and managed by CalGEM, and requires that the moneys in the OGER Account be used, upon appropriation by the Legislature, to plug and abandon oil and gas wells, decommission attendant facilities, or otherwise remediate sites that the supervisor determines could pose a danger to life, health, water quality, wildlife, or natural resources if there is no operator determined by the supervisor to be responsible for the remediation or who is able to respond. (PRC §§3260 *et seq.*)

At CalGEM's request, the California Council on Science and Technology (CCST) investigated the status of the state's oil and gas wells in order to estimate the potential cost to the state should the wells become orphaned. The CCST report was released in January 2020. The CCST report suggested that there were about 5,540 wells that were either likely to be orphaned or at high risk of becoming orphaned soon. The potential liability to the state was estimated to be roughly \$500 million net for these two categories alone. While there are indemnity bonds in place for many of these wells, the sum of the bond amounts is much less than the likely costs to plug and abandon the wells.

In March 2021, CalGEM released the second annual idle well report for the 2019 calendar year. The number of long-term idle wells remained relatively stable from 2018 to 2019 (17,576 to 17,560) as existing idle wells aged into long-term idle status and 543 long-term idle wells were either returned to operation or plugged and abandoned. The total number of idle wells increased to 37,095 from 29,292, although CalGEM states that part of that increase may be from the transition to a new database that may have delayed production reporting by some operators. During 2019 it appears that CalGEM identified 25 wells as orphan. CalGEM further identified 3,265 wells as potentially deserted due to failure to pay idle well fees by over 940 operators. In recent testimony before a legislative budget committee, CalGEM stated that the number of potentially deserted wells has increased. CalGEM paid about \$7.2 million on fourteen contracts for the plugging and abandonment of 54 wells in FY 2017 – 2019.

As of June 30, 2020, the HIDWAF account had a balance of over \$13 million. The Department of Finance subsequently made a temporary loan of \$10 million from that account to the General Fund as steps were taken to address the COVID-19 pandemic.

PROPOSED LAW

This bill would increase the annual expenditure limit from OGGAF for the plugging and abandonment of hazardous or idle-deserted wells to \$10 million, and provide that any of those funds not used annually for that purpose be retained, as specified.

In particular, this bill would:

- 1) Increase the amount that CalGEM can spend to plug and abandon hazardous or idle-deserted wells and decommission hazardous or deserted facilities from OGGAF to \$10 million annually starting with FY 2022-2023.
- 2) Also commencing with FY 2022 – 2023, provide that in any fiscal year that CalGEM expends less than \$10 million to plug and abandon hazardous or idle-deserted wells and decommission hazardous or deserted facilities, the Controller shall transfer from OGGAF to the OGER Account an amount equal to the different of \$10 million and what was spent for that fiscal year unless the OGER Account balance exceeds \$100 million.

ARGUMENTS IN SUPPORT

According to the author, “[w]ithout a responsible operator, taxpayers will be the funding source of last resort for environmental remediation. The 2018 California Council on Science and Technology Report estimated California might already have 5,540 wells without a viable operator, resulting in taxpayer costs ranging from \$500 million to billions of dollars. These wells are hazardous both to surrounding communities and the environment.”

“SB 47 will increase CalGEM’s annual spending authority to plug deserted wells from \$3 million to \$10 million and save any unspent funds until the account reaches \$100 million.”

“SB 47 is a significant step to ensure that the oil and gas industry pays from the remediation of hazards that the industry has historically left behind and those the State and taxpayers continue to inherit.”

ARGUMENTS IN OPPOSITION

The California Independent Petroleum Association (CIPA) writing in opposition notes that the state has HIDWAF, the existing annual expenditure authority from OGGAF and recent changes in law have provided for additional bonding authority to CalGEM to help fund orphan well and facilities. CIPA objects to the “raid” of HIDWAF funds by the Department of Finance as these are funds used to pay for addressing orphan wells, and states that “California’s taxpayers have not been on the hook for the remediation of a single onshore orphaned oil well.”

CIPA continues by stating that its members “believe that the current body of law surrounding remediating orphaned wells is working well and does not need to be modified. Instead, the state needs to fully reimburse the HIDWAF and allow CalGEM to

do its job of remediating orphaned wells using the money oil producers have paid towards this important effort.”

The Western States Petroleum Association (WSPA) also objects to the HIDWAF loan, notes that CalGEM has expended fewer funds recently to address orphan wells than it could have, and proposes several amendments that, among other things, reduce the \$10 million and \$100 million statutory caps proposed in this bill.

COMMENTS

The backlog of potentially deserted wells. Recent reforms at CalGEM have resulted in operators plugging and abandoning more wells and long-term idle wells. The reforms have also helped to identify what appear to be a few thousand potentially deserted wells that appear to have persisted from 2018 through 2019. An order-of-magnitude calculation (3,000 wells x the average Inland District 2019 well abandonment cost) suggests that the potential liability to address these wells could be easily over \$100 million if all eventually become orphan. CalGEM’s projections of plugging and abandoning up to 100 orphan wells annually with \$3 million from OGGAF may well be optimistic unless all the orphan wells are shallow and are easy to plug and abandon. An increase in the annual amount available from OGGAF to fund plugging and abandonment of orphan wells and decommissioning attendant facilities would help to ensure that the state’s taxpayers would not have to pay instead. In addition, rolling over unspent funds to the OGER Account could help ensure that moneys are available in the event of very expensive plugging and abandonment operations (discussed further below).

The persistence of the backlog. In the 2019 idle well report, CalGEM reported the wells from 10 operators became orphan. While the time and effort for CalGEM to determine if there is a solvent operator or previous operator for a well or wells will vary, it seems reasonable to project that it will take an extended period of time for CalGEM to work through the 900+ operators that recent reform efforts have suggested may be defunct. The failure of a contract issued by CalGEM recently to plug and abandon orphan wells helps to explain why CalGEM spent somewhat less than authorized to plug and abandon wells from OGGAF a few years ago. The time required to determine whether a well is orphan suggests that this step is the limiting factor in how much plugging and abandonment the state can perform.

Recent reforms are still taking effect. Recent reforms now require that all wells have an indemnity bond associated with them during their lifetime. Existing wells were grandfathered in, however, a bond would be required in the event there was a change in the well’s ownership. It is not clear how many of the wells that predate this reform – other than those covered by blanket bonds by major operators – have since had to comply. It is unknown how many of the potentially deserted wells identified above have any indemnity bond or other financial surety associated with them.

Additionally, recent legislative efforts have sought to ensure that additional indemnification funds are available to the state, if warranted (see, for example, AB 1057 (Limón, Chapter 771, Statutes of 2019) and SB 1147 (Hertzberg, Chapter 607, Statutes of 2018)). The recent bankruptcy of the state’s largest oil producer, the California Resources Corporation, in 2020 highlighted the potential risks to the state of insufficient bond funds to pay for the clean-up of wells and facilities, if needed.

Costs for decommissioning. According to CalGEM, the cost to plug and abandon an orphan well in Kern County can be as low as \$11 per foot. By contrast, in Los Angeles or other urban locations, the cost can be as much as \$200 per foot when ancillary costs are included. The indemnity bond for a well that is 10,000 feet in depth is \$40,000. Plugging and abandoning that well at \$11 per foot would cost a total of \$110,000, which exceeds the indemnity bond amount by a factor of 2.75. Data supplied to CCST by CalGEM for the years 2013- 2018 indicate that an idle well in the Inland district (including Kern County) was about \$47,000 on average to plug and abandon compared to \$152,000 in the Southern district. The range was \$1,200 - \$391,000. 2019 data from CalGEM report the average cost to abandon any well was \$87,075, \$86,983, \$98,423, and \$231,052 for the Coastal, Inland, Northern, and Southern CalGEM districts, respectively. Generally, the more urban and older a well – the more it costs to plug and abandon it. For example, the plugging and abandonment of two older leaking wells in Los Angeles a few years ago cost approximately \$1 million each.

Overdue reports. The overdue 2019 annual idle well report – originally due July 1, 2020 – and the overdue 2019 “Shall-witness/may-witness” report were both released within the last two weeks. There remain several other required reports that have not been received by the Legislature, or, as applicable, made available to the public. These include:

- The 2019 Annual Report of the Supervisor (due October 1, 2020, PRC §3108);
- The 2019 Well Stimulation Treatment (“SB 4”) report (due July 30, 2020, PRC §3215);
- The 2019 Underground Injection Control (UIC) Program report (due July 30, 2020, PRC §3114); and
- The April 1, 2021 report detailing the estimated costs of abandoning hazardous and deserted wells and decommissioning hazardous and deserted facilities with a timeline and specific future goals for the abandoning and decommissioning, as specified. (PRC §3258(d)(1)).

It is difficult to assess CalGEM’s current performance without the timely submission of these reports. Additionally, CalGEM has acknowledged that some of the information provided in the 2019 “Shall-witness/may-witness” report warrants revision.

Recent related legislation

SB 25 (Hurtado, 2021) would largely codify two regulatory provisions applicable to well stimulation treatments. (*This bill is pending before this Committee.*)

SB 84 (Hurtado, 2021) would institute additional reporting requirements at CalGEM related to certain idle well reports, among other things. (*This bill is pending before the Senate Appropriations Committee.*)

SB 406 (Stern, 2021) would require increased public transparency at CalGEM, among other things. (*This bill is pending before this Committee.*)

SB 419 (Stern, 2021) would require the use of a skilled and trained workforce for certain work conducted on oil and gas wells and related facilities. (*This bill is pending before this Committee.*)

SB 467 (Wiener, 2021) would ban new well stimulation treatment permits, among other things. (*This bill is pending before this Committee.*)

AB 896 (Bennett, 2021) would create a new collections unit at CalGEM, among other things. (*This bill is pending before the Assembly Appropriations Committee.*)

SUPPORT

350 Bay Area Action
350 Conejo/San Fernando Valley
350 Humboldt
350 South Bay Los Angeles
350 Ventura County Climate Hub
1000 Grandmothers for Future Generations
Alliance of Nurses for Healthy Environments
Audubon California
California Coastal Protection Network
California League of Conservation Voters
California Interfaith Power & Light
Center for Biological Diversity
Citizens' Climate Lobby – Ventura Chapter
Clean Water Action
Climate 911
Climate First: Replacing Oil & Gas (CFROG)
Climate Health Now
Conejo Climate Coalition
Earthjustice
Environmental Defense Center
Environmental Working Group
Families Advocating for Chemical & Toxins Safety (FACTS)
Food & Water Watch
Greenpeace USA
Indivisible California Green Team
Indivisible Together We Will Los Gatos
Indivisible Ventura
Interfaith Climate Action Network of Contra Costa County
Long Beach Alliance for Clean Energy
Los Padres Forestwatch
Mi Familia Vota
Natural Resources Defense Council
Normal Heights Indivisible
Rodeo Citizens Association
Rooted in Resistance (Indivisible)
San Francisco Bay Physicians for Social Responsibility
Santa Barbara County Action Network
Santa Barbara Standing Rock Coalition
Sierra Club California

SoCal 350 Climate Action
Sunflower Alliance
Surfrider Foundation
Take Back Our Planet

OPPOSITION

California Independent Petroleum Association
State Building and Construction Trades Council of California
Western State Petroleum Association (unless amended)

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