

ENERGY AND ENVIRONMENT COMMITTEE REPORT relative to the extraction processes used by the Los Angeles Department of Water and Power's (LADWP) contractor to access natural gas from gas producing properties in Wyoming.

Recommendation for Council action:

NOTE and FILE the December 11, 2013 LADWP report relative to to the extraction processes used by the LADWP's contractor to access natural gas from gas producing properties in Wyoming.

Fiscal Impact Statement: Not applicable.

Community Impact Statement: None submitted.

Summary:

On October 23, 2013, a Motion (Blumenfield - Koretz) was introduced requesting the LADWP to report in the extraction practices, including fracking, and the chemicals used by the contractor to access the natural gas from gas fields in Wyoming and the status of the natural gas acquisition agreement. Also, the Motion call for the LADWP to report on any potential impact that the contractor's extraction method (fracking) may have on public health and the environment and ways to mitigate its impact. According to the Motion, the use of hydraulic fracturing (fracking) to extract natural gas is of great concern since it may pose a public health risk. Fracking has been linked to groundwater contamination and increased seismicity.

The LADWP currently procures natural gas to support its power generation from gas fields in Wyoming. This arrangement is conducted through a longterm natural gas acquisition contract with the Southern California Public Power Authority (SCPPA). The firm that provides natural gas to the LADWP and SCPPA reportedly uses fracking methods to extract it. There have been reports linking aquifer contamination in Wyoming to fracking practices. The full environmental impacts of fracking are yet to be fully defined.

Subsequently, on August 6, 2014, your Committee considered a December 11, 2013 LADWP report in response to the above Motion. According to the LADWP, it has no involvement in any current fracking operations. The LADWP has completed its purchase of gas producing acreage in Wyoming through participation in a SCPPA project. All drilling and fracking activity have been completed according to the regulations of the Wyoming Oil and Gas Conservation Commission (WOGCC) with no reported incidences of ground water contamination or other environmental or health impact. No further drilling is planned. The impacts of fracking are being studied by the Wyoming Department of Environmental Quality (WDEQ) and WOGCC which together will release their joint report, by September 30, 2014, and the federal United States Environment Protection Agency which will release its congressionally-directed study of whether fracking impacts drinking water supplies, in 2016. After the release of these reports the effects of fracking on the environment will be better understood.

The LADWP participated in a SCPPA project which acquired the assets of the Anschutz Pinedale Corporation that included an undivided 42.5 percent working interest in three natural gas leases on which 38 at the time (and now about 131) operating oil and gas wells were producing, located in the Pinedale Anticline in the southwest region of the State of Wyoming. The LADWP's ownership

interest is 74.4681 percent of the 42.5 percent previously owned and subsequently purchased by SCPPA from the Anschutz Pinedale Corporation. The LADWP's share is then approximately 31.65 percent of the total. At present approximately 13 percent of the LADWP's annual gas requirements comes from these operations. Receipt of natural gas from the Pinedale acreage is anticipated to last another 30 years, although at a reduced level. The other participants are the cities of Anaheim, Burbank, Colton, Glendale, Pasadena and the Turlock Irrigation District. The largest owner of the balance of the working interests in the properties is Ultra Resources Corporation which also acts as the operator of the leases.

This operator initiates new drilling activity and brings the wells into production. There is an agreement between SCPPA and Ultra called the Joint Operating Agreement (JOA) which defines the activities and relationships between the operator and the working interest holders. Ultra contracts with drilling rig operators to actually drill wells in locations Ultra selects. Ultra also hires the services of Halliburton as an independent contractor to do the actual well completion activity, including fracking. Halliburton is using chemicals and fracking techniques to extract the natural gas from the field. WOGCC regulates this activity.

Ultra has ceased all drilling and fracking activity on acreage in which the LADWP has an interest. We believe the drilling rigs have been moved to other parts of the Pinedale Anticline in which Ultra has a majority or exclusive interest. The LADWP has attached a summary to the December 11, 2014 LADWP report of fracking information for the last seven wells fracked (over a year ago) in which the LADWP has an interest. This information is required by the WOGCC as part of its oversight responsibility and is readily available on the Frac Focus Chemical Disclosure Registry. The acquisition agreement exists between SCPPA and the LADWP as a Part C project participant in which the LADWP provided its own funds for the purchase by SCPPA, without resorting to SCPPA bonds. Since the acquisition, the only money paid to SCPPA to maintain the ownership interest has been to cover LADWP's share of operating costs for such things as royalty payments to government entities and other nonworking interests, additional drilling and Operating and Maintenance costs.

Natural gas in the Pinedale Anticline area is locked in tight rock formations. Wells in the Pinedale area use a multi-stage fracturing method to extract the gas. First the well is drilled, the casing perforated with a shaped charge to provide communication between the inside of the well bore and the hydrocarbon formation, and then the formations must be further broken down, creating channels for gas to flow. This stage is accomplished by hydraulic fracturing of a formation, when fluid and/or compressed gas is forced at high pressure down the wellbore, fracturing the gasbearing rocks, creating cracks and fissures. These fissures become conduits for gas to flow out of the formation and up the steel pipe set in the well. The method for extraction of crude oil and natural gas is the same. To keep the formation from closing back on the fissures and resealing the rock, solid material is mixed in the "frack fluid" to prop the channels open. The State of Wyoming requires the disclosure of the chemicals that are used in the fluids during the operations for hydraulic fracturing. The Pinedale wells are drilled down to a depth of almost 14,000 feet. The well construction and completion procedures include numerous barriers to control the fracturing process and to prevent the migration of hydraulic fracturing fluid into underground drinking sources.

After consideration and having provided an opportunity for public comment, the Committee moved to note and file the December 11, 2013 LADWP report. This matter is now submitted to Council for its consideration.

Respectfully Submitted,

ENERGY AND ENVIRONMENT COMMITTEE

<u>MEMBER</u>	<u>VOTE</u>
FUENTES:	YES
BLUMENFIELD:	YES
LABONGE:	ABSENT
HUIZAR:	ABSENT
KORETZ:	YES

ARL
8/6/14

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