

Southern Oregon Climate Action Now

SOCAN

Confronting Climate Change

<https://socan.eco>

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Members of the House Committee on Energy and Environment:

Chairperson Helm and members of the committee:

I write on behalf of the 1500 plus Southern Oregonian residents who are Southern Oregon Climate Action Now to express our profound support for HB2623 that prohibits the employment of hydraulic fracturing (fracking) for oil and gas extraction and production in the state of Oregon.

As we all know Oregon - through our Governor and House and Senate Leadership among others - is committed to passing legislation that would turn Oregon from a contributor to the global warming problem to a leader, by example, in addressing this existential threat. Through the proposal for an Oregon Climate Action Program, the legislature is exploring how best our state can fulfill our obligation to protect the livability of our planet for future generations by both reducing our greenhouse gas emissions and promoting activities that sequester these greenhouse gases.

If we are to achieve the kind of greenhouse gas emissions reductions that are needed in order to reduce global warming to 1.5°F above pre-industrial conditions as the 2018 Intergovernmental Panel on Climate Change suggested is imperative, we have to reduce emissions some 45% by 2030 and reach net zero emissions by 2050. This means we must take a very critical look at our energy extraction and usage, and do it today. A very strong case can be made for the position that we simply have to leave all fossil fuels in the ground. Failing that, however, we should apply sane criteria to what fossil fuels we extract and how we extract them.

The first criterion to apply might reasonable be the greenhouse gas emissions associated with the extraction technique. The problem with fracking is that it results in leakage of methane, a global warming gas that the 2013/2014 IPCC report identified as being 86 times worse than carbon dioxide on a 20-year basis, and 34 times worse on a 100-year basis. Studies undertaken a few years ago on natural gas extraction revealed that methane leakage from conventional

natural gas extraction was some 1.3% while for shale fracking, this reached 3.3%.

(http://www.eeb.cornell.edu/howarth/publications/Howarth_2014_ESE_methane_emissions.pdf).

It is incongruous that accompanying such serious and concerted efforts to reduce our greenhouse gas emissions, the state should not acknowledge that hydraulic fracturing (fracking) constitutes an unacceptable way to extract fossil fuels from the ground.

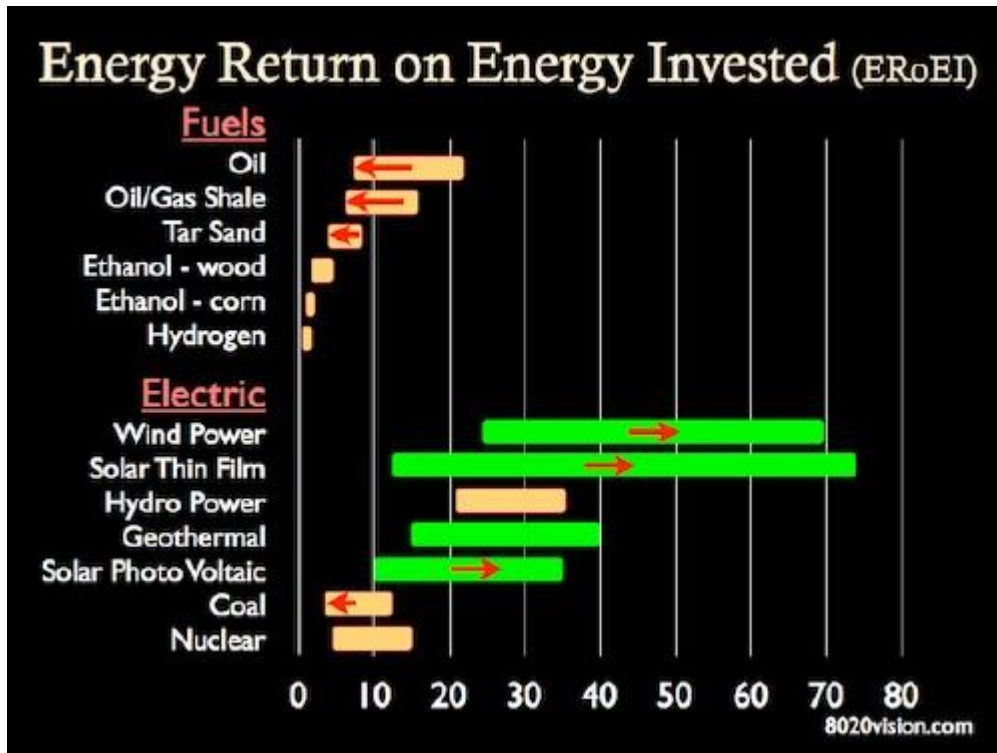
Another criterion that could reasonably be applied is to avoid extracting fossil fuels using a technology such as hydraulic fracturing that poses serious potential hazards to our environment and to human health

(https://serc.carleton.edu/NAGTWorkshops/health/case_studies/hydrofracking_w.html).

A third criterion would be to consider the Energy Returned on Energy Invested, a measure of how much energy we get back in a fuel for each unit of energy expended acquiring it.

(<https://www.sciencedirect.com/science/article/pii/S0301421513003856>) When the EROEI drops to 1:1 or below, the energy resource is effectively exhausted.

The following figure, (from <http://www.roperld.com/science/minerals/eroeifossilfuels.htm> - 2017) depicts trends in EROEI for major energy sources. Note how the values for Renewables are all rising (becoming more efficient) while those for fossil fuels are falling (becoming less efficient). Furthermore, among the least efficient fossil resources are tar sands and shales where fracking is the predominant technology employed. Undoubtedly, as fossil fuel resources become ever more depleted, the EROEI will drop further - as indicated, while improving technology will likely lead to increases in the efficiency of the renewable technologies.



As we are attempting to reduce our greenhouse gas emissions, it makes no sense for us to approve technologies that will result in substantial leakage of methane compromising greenhouse gas emissions reduction efforts. Furthermore, judging the permitting of fracking to be against Oregon's best interests is enhanced by reviewing the potential environmental and health problems.

For these reasons, Southern Oregon Climate Action Now Board, by unanimous vote, encourages the Oregon Legislature to approve resolution HR2623.

We urge the House Committee on Energy and Environment to recommend HB2623 'Do Pass.'

Respectfully,

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