CORRECTED Due to typos-replace part 1 of 3 just sent with this post-many thx! (Part 1 of 3) 3.10.25 Kathy Ging's expanded Testimony opposing SB 215, 216, 635: Pls. give to Senate Committee on Energy/ Environment; and place in the public record

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An Oregon Realtor 38 years, representing myself, also involved in nonprofit renewable energy research, education since 1975, I ask that you oppose SB 215, 216, 635 that could result in SMRs.

Do not allow an American Dream of Low Impact Nuclear Energy via SMR to morph into an American Nightmare.

Anticipating skyrocketing nuclear expansion, short-sighted entities seem willing to risk habitats, sentients overlooking tragic nuclear energy risks including cyber or human caused errors, attacks, natural disasters and an appalling absence of long term permanent waste storage adumbrated 50 years ago, a problem still not solved. Fifty years ago it was revealed that IF the US built all nuclear power plants planned:

they would consume ALL freshwater without any left for agriculture.

These entities gloss over nuclear accident wake-up calls like Three Mile Island, near Harrisburg PA, and Chernobyl, Ukraine, accidents. Children and others had many adverse effects including thyroid disease after Chernobyl which resulted in large contaminated areas.

Short sighted energy planning lacks circumspection.

One survey NuScale Nuclear quoted does not accurately represent Oregonians who for decades have vehemently opposed nuclear energy favoring renewable energy sources in numerous surveys.

How to Lie with Statistics (1954) outlines 'the misuse and errors in interpretation of statistics, and how errors create incorrect conclusions' It is doubtful a bona fide survey by independent sources would find over half of respondents supporting nuclear energy.

In the mid-80s I initiated the revised version of Oregon's residential renewable energy personal income tax credit RETC that passed the Legislature, 22 zip in the Senate, day before summer solstice.

Its passage was acclaimed by those living in other states as it was known as the 'best' personal income tax credit at the time, buoying up solar/ renewable energy industries for 30 years through 2017. A leadership vacuum was obvious after 85% of solar industries had gone bankrupt due to sunset of state and federal tax credits as they were just getting established working through learning curve.

Billions had gone toward accelerating fossil fuels and nuclear power hard paths as history reveals.'Conventional energy sources' had bamboozled poltical leaders to accelerate this power hungry industry.

Oregon's RETC reflected Oregon State Motto: 'She Flies with Her Own Wings.'

The Sun Betrayed: A Report on the Corporate Seizure of U.S. Solar Energy Development (1979) by investigative reporter Ray Reece reveals 'a disturbing history of the collusion between federal and corporate energy executives to control the development of solar energy.'

'Follow the money trails' the primary reason nuclear power supplies any electricity. A leadership vacuum guided not by due diligence consumer interests led leaders who failed to educate consumers sufficiently that conservation and world energy consultant genius from Rocky Mountain Institute, Oxford educated, Amory Lovin's Soft Energy Paths directions should have been paramount.

David Morris, Institute for Local Self Reliance mid-70s wrote in The Dawning of Solar Cells (1975) that IF the US military had lobbied to advance solar electric cell R&D for earth rather than outer space applications comparable to the way they advocated for transistors to replace vacuum tubes: Solar electric cells would have been cost effective within a decade for earth based applications.

Oregon Republican Governor Tom McCall authorized the Transition document, in no uncertain terms referring to a Transition from fossil fuels and nuclear power to conservation and renewables.

Instead of recommending transition policy decisions, Big Energy primed the Feds to subsidize central thermal generation guaranteed profit monopolies hood-winking thought leaders to focus on resource extracting, polluting profit generating fossil fuel and nuclear options rather than neighborhood and on site energy generation in recent decades called Disruptive Energy and Distributed Generation.

Rocky Mountain Institute's commendable book free online: Small is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size \* (2002) by Amory Lovins.

Bank of America was quoted by NuScale in testimony. When assistant librarian to B of A trust research library in San Francisco early 70s, I had the opportunity to read think tanks reports provided to portfolio

mangers. I was shocked to see nuclear energy stock analysis reports estimated xx number of deaths/ injuries if a nuclear accident were to occur.

This knowledge compelled me to start looking for alternative aka renewable energy sources and discovered that Conservation and Energy Efficiency then and now our major new energy source.

I soon moved to Oregon, started nonprofit organizations that gathered public support and organized 25 renewable energy events including Oregon Energy Round-Ups 1982-84 the 'Highlight of the 1982 State Fair,' later initiating a revised RETC while doing public planning graduate work at UO Eugene writing a policy paper for Professor Carl Hosticka also an Oregon legislator that became RETC passing in the second go around.

\* Small is Profitable describes 207 ways in which the size of electrical resources–devices that make, save, or store electricity–affects their economic value. It finds that properly considering the economic benefits of 'distributed' (decentralized) electrical resources typically raises their value by a large factor, often approximately tenfold by improving system planning, utility construction and operation, and service quality and by avoiding societal costs. Small is Profitable introduces engineering and financial practitioners, business managers and strategists, public policymakers, designers, and interested citizens to the new value opportunities presented by considering these economic benefits. It also provides a basic introduction to key concepts from such disciplines as electrical engineering, power system planning and financial economics."

(Continued in Part 2 of 3) ~~~~ Kathy Ging, MA, GRI CORRECTED <u>kathy@kathyging.com</u> <<u>mailto:kathy@kathyging.com</u>> 541-342-8461 (Part 2 of 3) 3.10.25 Kathy Ging's expanded Testimony opposing SB 215, 216, 635: Pls. give to Senate Committee on Energy/ Environment; and place in the public record.

Three Mile Island nuclear accident near Harrisburg, Pennsylvania should have been a warning. My sister lived near TMI. Ann told me that for decades after the disaster people still experienced nightmares.

Myopic energy planning also evident with this century' inane omentum to transfer most transportation to electric although grids CANNOT support en masse tech transfer. Hybrid fuels using batteries and liquid fuels could both could be derived from locally produced industrial hemp. A Southern governor candidate had run his campaign decades ago on hemp sourced fuel.

A major conundrum about which a Eugene Water & Electric Board EWEB staff person agreed with me in a phone call last year, 'confessing' that EWEB had not even considered the following realistic scenario.

Oregon's largest ratepayer owned utility had NOT considered a discomfiting reality: brown outs authorized by utilities now allowed by OR PUC...people returning from trips, no time or ability or even electricity to charge battery if fire races over the hill. Yet battery only EVs are the overwhelming choice of Oregon EV owners!

Ask Native Americans in Four Corners, other areas what they think and know about-more than you-and I about nuclear energy including SMRs: most disapprove.

Listen to UO Eugene Public Interest Environmental Law Conference PIELC.org <<u>https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fpielc.org%2F&data=05%7C02%7C</u> see.exhibits%40oregonlegislature.gov%7C396514d11e2341c74ebb08dd6072158a%7C489a9c84574a48c 7b72a2450511334cc%7C1%7C0%7C638772765293444491%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0e U1hcGkiOnRydWUsIIYiOiIwLjAuMDAwMCIsIIAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIIdUIjoyfQ%3D%3D%7C60 000%7C%7C%7C&sdata=4L6nNWrsGggck4txuN8fAJgX0vrvVgjr3l8aHYjw7AQ%3D&reserved=0> panel on SMRs a few years ago including 1st American panelists berating past government nuclear misinfo and warning against allowin SMRs.

1st Americans met yearly on Mother's Days at Four Corners to protest nuclear even 'sub-critical' testing that damaged health and environment misinformed that testing was safe for sentients, habitats.

More myopic planning: Did you read about the disastrous mid-January fire in Moss Landing, Monterey County CA? Mainstream news has ignored it.

Astronomically bad: 'Lithium Battery Fire Sickens Residents, Sparks Worry about Another Sacrifice Zone' article. Article reported how in January +/- 100,000 lithium ion batteries caught fire affecting humans, other sentients, residents 50-100 miles away, farmss, orchards, contaminating 'Salad Bowl of America' soil likely for decades to come in a prime agricultural area that grows 70% of veggies eaten in this country, some exported.

Nobody was but independent experts should have been on the alert because in the past five years three other fires had erupted at the Moss Landing factory.

The Moss Landing Monterey County battery factory serving Vestra energy and a natural gas company storage was built near a marine sanctuary and critical farm areaa that also grows 90% of artichokes and many fruits.

EPA did minimal testing; productive farmland has been contaminated possibly for decades. (See Part 3 of 3)

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Other innovations need accelerated R&D: The USDA 's own statistics state that USA could plant 4-5 states down South with industrial hemp (non mind-elevating Cannabis) and be free of foreign oil; we would not need nuclear because biomass could provide the energy.

Hemp batteries for storage can replace fire prone lithium ion batteries causing thousands of fires via batteries from EVs even scooters (700 fires in NYC alone early 2022); robo vacuums (cause of St. Vincent de Paul's warehouse fire in Eugene OR November 2024); numerous electric vehicle fires many which cannot easily be extinguished without 10,000 gallons of water; some EVS experiencing spontanesous combustion like an auto parked in Los Angeles.

Hemp batteries not fire-prone and not using as much rare earth can be built for 1/100th the cost of lithium ion.

Small hemp batteries are now being made in the USA, industrial size ones to come. David Mitlin has one patent; others world-wide developing these.

More benign less resource extracting energy sources and storage can be catapulted to the front row as even Elon Musk is backing hemp batteries.

Guide Oregon's Energy Future wisely now: oppose all 3 bills. Do not let wishful thinking allow the speculations on 70s portfolio manager desks casually projecting the number of dead and injured to be next decade's front page news.

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