## FIRST REGULAR SESSION

## **House Concurrent Resolution No. 48**

## 96TH GENERAL ASSEMBLY

INTRODUCED BY REPRESENTATIVES SCHATZ (Sponsor), POLLOCK, KORMAN, HINSON, SMITH (150), HIGDON, NETH, HOUGHTON, PHILLIPS, STREAM, COOKSON, BERRY, WHITE, DAVIS, WIELAND, McCAHERTY, BARNES, REIBOLDT, REDMON, CURTMAN, FITZWATER, ASBURY, KLIPPENSTEIN, JOHNSON, ENTLICHER, LICHTENEGGER, DAY, FREDERICK, LONG, CROSS, CAUTHORN, WALLINGFORD, DENISON, SHUMAKE, DIECKHAUS, SCHIEFFER, HOLSMAN, HARRIS, BLACK, FALLERT AND McDONALD (Co-sponsors).

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2 3	WHEREAS, the United States and the world find themselves dependent upon China for a group of minerals and metals known as "Rare Earth Elements" that are critical to many commercial, environmental, and defense applications; and
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5 6 7	<b>WHEREAS</b> , rare earth elements represent the only known bridge to the next level of improved performance in the material properties for many metallurgical alloys, electrical conductivity, radio active shielding, and instrument sensitivity; and
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9 10 11	<b>WHEREAS</b> , thorium is a naturally occurring companion element to the rare earth elements which can be extracted as a byproduct of rare earth mining at no additional expense and without creating additional mining waste; and
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13 14 15	<b>WHEREAS</b> , thorium can be used as fuel in a nuclear power plant because it is a slightly radioactive metal and is 550 times more abundant than Uranium 235 needed for nuclear power; and
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17 18	<b>WHEREAS</b> , thorium is generally considered harmless except through extreme long-term exposure or unless it is inhaled as a very fine dust; and
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20 21	<b>WHEREAS</b> , thorium emits alpha rays which have no penetrating strength and cannot pass through human skin or thin plastic film; and
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23 24	<b>WHEREAS</b> , thorium emits less radiation than sun light, radon from a gas stove top, potassium in a banana, X-rays, frequent air travel, and TSA full body scans; and

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25 26	<b>WHEREAS</b> , the United States has two permitted world class rare earth mines - the Pea Ridge Mine in Washington County, Missouri, and the Mountain Pass Mine in California; and
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28 29 30	<b>WHEREAS</b> , Missouri's Pea Ridge Mine has all 17 of the recoverable rare earth elements and is the only permitted heavy rare earth mine outside of China. The Mountain Pass Mine only has 8 of the 17 recoverable rare earth elements and cannot produce rare earths; and
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32 33	<b>WHEREAS</b> , the United States has no refining facilities to process the rare earths from the Pea Ridge Mine or manage the thorium byproduct; and
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35 36 37 38	<b>WHEREAS</b> , a thorium-fueled nuclear reactor generates hundreds of times the power as a uranium or coal plant, but produces essentially no waste. A thorium plant would produce less than 1% of the waste that a uranium plant produces and produces no carbon or greenhouse gases, unlike coal plants; and
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40 41 42	<b>WHEREAS</b> , while the waste of a uranium power plant is toxic for more than 10,000 years, the little waste that is produced by a thorium power plant is benign in less than 200 years; and
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44 45 46 47 48	<b>WHEREAS</b> , a thorium power plant can be used to burn our current stockpile of nuclear waste. In addition, thorium power plants cannot "melt down", thorium cannot practically be used to make nuclear weapons, thorium does not require any enrichment for energy use, and there is enough thorium in the United States alone to power the country at its current energy level for more than 10,000 years; and
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50 51	<b>WHEREAS</b> , a thorium power plant can tap right in at the source of a current coal or uranium power plant without the need for laying a new grid; and
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53 54	<b>WHEREAS</b> , through the development of a centralized rare earth-thorium facility, all thorium waste products can be managed and controlled in an environmentally safe manner; and
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56 57 58	<b>WHEREAS</b> , China's monopoly on production of rare earth elements is posed to capture emerging technologies and manufacturing facilities from around the world, in exchange for supply contracts; and
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60	WHEREAS, absent any new production, Asia will soon consume 100% of the world's
61	production of rare earth elements; and
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63 64 65	<b>WHEREAS</b> , China's National Industrial Policy of Rare Earth Dominance cannot be challenged by private investment. The United States must develop a National Domestic Rare Earth Refinery to survive; and
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67 68	<b>WHEREAS</b> , unless the United States Congress makes changes, our rare earths will be sent to China for processing and they will not come back for use in the United States; and
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70 71 72	<b>WHEREAS</b> , with its Pea Ridge Mine, Missouri can become the exclusive producer of heavy rare earths in the United States and attract new high tech companies from around the world:
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74 75 76	<b>NOW, THEREFORE, BE IT RESOLVED</b> that the members of the House of Representatives of the Ninety-sixth General Assembly, First Regular Session, the Senate concurring therein, hereby:
77 78 79	(1) Strongly support the development of thorium energy and the Pea Ridge Mine in Washington County, Missouri, in its efforts to extract thorium as a byproduct of rare earth element mining; and
80 81 82 83	(2) Strongly urge the United States Congress to support the use of thorium as a safe, efficient fuel source by taking the necessary steps to allow the Pea Ridge Mine in Missouri to extract thorium as a byproduct of rare earth elements mining and for the development of the refineries necessary to support thorium power plants; and
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85 86 87 88	<b>BE IT FURTHER RESOLVED</b> that the Chief Clerk of the Missouri House of Representatives be instructed to prepare properly inscribed copies of this resolution for the Majority and Minority Leaders of the United States Congress and each member of the Missouri Congressional delegation.
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