

SB 990 STAFF MEASURE SUMMARY

Senate Committee On Business and Transportation

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Meeting Dates: 4/12, 4/17

WHAT THE MEASURE DOES:

Exempts small modular reactors from certain siting restrictions that apply to nuclear-fueled thermal power plants. Requires small modular reactors to be sited in a city or county where the electors have approved of small modular reactors being located. Requires emergency planning zones for small modular reactors to be located in a county where the electors have approved of their location. Requires proposed disposal of high-level radioactive waste by small modular reactors to comport with the process approved or adopted by the United States Nuclear Regulatory Commission.

FISCAL: Minimal fiscal impact

REVENUE: No revenue impact

ISSUES DISCUSSED:

- Size and specifications of small modular reactors
- Deployable to remote areas
- Safety features of small modular reactors

EFFECT OF AMENDMENT:

No amendment.

BACKGROUND:

Small modular reactors (SMRs) are nuclear power plants that are smaller in size (generally 300 megawatt electric, or MWe) than typical base load nuclear power plants (typically 1,00 MWe or higher). These smaller reactors are factory-fabricated and can be transported by truck or rail to a site, making them potentially useful in remote areas that have difficulty accessing economically efficient, reliable energy sources.

Nuclear power plants, including SMRs, generate energy through nuclear fission, which occurs when the unstable nucleus of fissile material (such as Uranium-235) absorbs a free neutron released by another atom and is split into two atoms of lighter elements as well as additional free neutrons. Heat generated by a sustained fission chain reaction can be used to generate electricity.