

ALASKA STATE LEGISLATURE
SENATE COMMUNITY AND REGIONAL AFFAIRS STANDING COMMITTEE

February 17, 2022

3:30 p.m.

MEMBERS PRESENT

Senator Shelley Hughes, Chair
Senator Robert Myers, Vice Chair
Senator Elvi Gray-Jackson

MEMBERS ABSENT

Senator Lyman Hoffman
Senator David Wilson

COMMITTEE CALENDAR

SENATE BILL NO. 177
"An Act relating to microreactors."

- HEARD & HELD

SENATE BILL NO. 172
"An Act increasing the residential property tax exemption."

- HEARD & HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 177

SHORT TITLE: MICROREACTORS

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

02/01/22	(S)	READ THE FIRST TIME - REFERRALS
02/01/22	(S)	CRA, RES
02/15/22	(S)	CRA AT 3:30 PM BELTZ 105 (TSBldg)
02/15/22	(S)	Heard & Held
02/15/22	(S)	MINUTE(CRA)
02/17/22	(S)	CRA AT 3:30 PM BELTZ 105 (TSBldg)

BILL: SB 172

SHORT TITLE: PROPERTY TAX EXEMPTION

SPONSOR(S): SENATOR(S) WIELECHOWSKI

01/26/22	(S)	READ THE FIRST TIME - REFERRALS
----------	-----	---------------------------------

01/26/22 (S) CRA, L&C
02/17/22 (S) CRA AT 3:30 PM BELTZ 105 (TSBldg)

WITNESS REGISTER

ASHLEY FINAN, PhD., Director
National Reactor Innovation Center (NRIC)
Idaho National Laboratory
Idaho Falls, Idaho

POSITION STATEMENT: Presented the PowerPoint, "Advanced Reactor Concepts and Safety Overview."

CARLO PARISI, PhD., Scientist
Idaho National Laboratory
Idaho Falls, Idaho, Alaska

POSITION STATEMENT: Answered questions and provided information during the hearing on SB 177.

PIYUSH SABHARWALL, PhD., Senior Staff Scientist
Idaho National Laboratory
Idaho Falls, Idaho

POSITION STATEMENT: Answered questions and provided information during the hearing on SB 177.

GWEN HOLDMANN, Director
Alaska Center for Energy and Power (ACEP)
University of Alaska Fairbanks
Fairbanks, Alaska,

POSITION STATEMENT: Answered questions and provided information during the hearing on SB 177.

NICK MOE, Staff
Senator Bill Wielechowski
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Introduced SB 172 on behalf of the sponsor.

SENATOR BILL WIELECHOWSKI
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Sponsor of SB 172.

ACTION NARRATIVE

[3:30:16 PM](#)

CHAIR SHELLEY HUGHES called the Senate Community and Regional Affairs Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Gray-Jackson, Myers and Chair Hughes.

SB 177-MICROREACTORS

[3:30:47 PM](#)

CHAIR HUGHES announced the consideration of SENATE BILL NO. 177 "An Act relating to microreactors."

[3:31:45 PM](#)

At ease.

[3:32:31 PM](#)

CHAIR HUGHES reconvened the meeting and listed the individuals who were available to answer questions, including Dr. Finan who would give the presentation on microreactors.

[3:34:31 PM](#)

ASHLEY FINAN, PhD., Director, National Reactor Innovation Center (NRIC), Idaho National Laboratory, Idaho Falls, Idaho, presented the PowerPoint, "Advanced Reactor Concepts and Safety Overview." She began her testimony with a detailed description of Dr. Sabharwall's and Dr. Parisi's areas of expertise. She advised that she would be talking about advanced reactor concepts and an overview of reactor safety. She began with an overview of advanced fission outlined on slide 2:

Advanced Fission

- Categorized in terms of capacity
 - Microreactors: <50 MWe
 - Small reactors: <300MWe (SMRs use modular construction)
 - Medium reactors: 300MWe <700 MWe
 - Large reactors: >700 MWe
- Variety of coolants (gas, sodium, salt, lead, water, etc.)
- Clean, high availability energy source
- Diverse market opportunities
- Improved safety, waste, security, and target economics
- 60+ private sector projects underway

[3:38:29 PM](#)

CHAIR HUGHES asked if the Idaho National Laboratory was federally funded.

DR. FINAN explained that the Idaho National Laboratory is: located in and around Idaho Falls, a \$1.6 billion organization, a Department of Energy laboratory, and the nation's leading nuclear energy laboratory. INL also works on cybersecurity for the Department Homeland Security, integrated energy systems, and renewable energy sources. The National Reactor Testing Station was located on the INL site in 1949, giving it a legacy of nuclear demonstration. About 52 reactors were demonstrated on the site at that time and now there are plans to demonstrate advanced reactors. About 5,000 people are employed at INL.

CHAIR HUGHES asked if all INL staff were federal employees.

DR. FINAN answered no, they're employees of the contractor that operates the laboratory on behalf of the Department of Energy (DOE).

CHAIR HUGHES asked her to talk about the information at the bottom of slide 2 about the power uses for small and midsize cities and the US.

DR. FINAN answered that a small town generally will use about 1 megawatt of electricity, a midsize city will use about 1 gigawatt, and the US uses about 1 terawatt of electricity.

CHAIR HUGHES asked what the population would be in a small town that uses 1 megawatt of electricity.

DR. FINAN estimated that a small town in this context could be up to 100,000, and said she'd follow up with a more definitive answer.

[3:41:34 PM](#)

DR. FINAN described the Advanced Reactor Design Types:

- Key high-temperature gas reactors typically use a helium coolant and a TRISO fuel form. TRISO is an important part of the safety for high temperature gas and some other reactors. It is used in many microreactor designs.
- Sodium fast reactors use a liquid sodium metal coolant.
- Lead fast reactors use a molten lead coolant.
- Salt-cooled reactors use a solid fuel with a molten salt coolant. TRISO is the solid fuel in the current designs.

- Molten salt-fueled reactors use a liquid fuel. This is a significantly different design because the fuel is dissolved in the molten salt.
- Water-cooled reactors. Most of the reactors in the US now are water-cooled, although some advanced designs seek to improve on the existing fleet.
- The demonstrations moving forward in the US today represent other variations of reactors.

DR. FINAN clarified that all the coolants listed above have been demonstrated in some form in the last decade, but not necessarily in reactors in the US. The point is that none of this technology is entirely new.

[3:43:49 PM](#)

DR. FINAN described the diagram on slide 4 of a traditional pressurized water reactor. This design, which is one of two water reactor types, is reflected in many of the reactors throughout the US. She described how it works. Inside the containment structure depicted on the left is a red box that is the reactor core. It holds the fuel that is fissioning. This is the process that occurs when a neutron hits and splits a uranium atom to produce energy and more neutrons. That reaction causes subsequent reactions that release energy in the core. That energy heats water in the reactor. The water is represented in purple in the diagram. As the water is heated, the heat is transferred from the containment structure to the plant where energy products are produced. In the diagram, the heated purple water and a secondary loop of cool water (represented in blue) go into a generator to produce steam. A steam line goes out the top of the generator and the steam drives a turbine generator that, in this case, makes electricity. A cooling loop (represented in light blue) goes out and the water is cooled before it goes back to the steam generator where it is heated by the reactor.

She relayed that a key goal of nuclear safety is to keep the radioactivity in the fuel. It is the fission products that are produced when uranium atoms are split (represented in the red reactor box) that are radioactive. If everything is working as designed, the radioactive particles stay inside the fuel, which stays inside the reactor core. If the fuel is damaged, the radioactive products are released into the water inside the reactor. This means that the first level of protection is broken. The focus at that point is to keep the radioactive particles in the (purple) water, but if it gets out it's theoretically contained in the containment structure. Should the

containment structure fail, any products leaving the containment are filtered. If that fails, the next step is to evacuate. This is what happened in the Fukushima disaster. She reiterated that the goal is to avoid the situation where everything goes wrong.

[3:47:29 PM](#)

DR. FINAN directed attention to the two examples of advanced reactors on slide 5. They are from the Generation IV International Forum (GIF), which is an international effort to develop and deploy advanced reactors. The diagram on the left shows a very high temperature gas reactor (VHTR) and the diagram on the right shows a sodium-cooled fast reactor (SFR). She said she would not describe these in detail but the important point is that they are very similar. Both have a core with fuel that fissions and creates heat that is transferred. The heat in the SFR is transferred to a liquid sodium that is used to make steam, which drives a turbine generator that makes electric power. In the VHTR, the fission and heat that is created is used to produce hydrogen. Basically, it takes reactor heat and removes it to the balance of plant to make an energy product. The goal here too is to avoid damaging the fuel, but if it is damaged the intent is to retain any radioactivity within the reactor.

[3:49:10 PM](#)

DR. FINAN advanced to slide 6 to describe the US Nuclear Regulatory Commission (NRC) role in overseeing nuclear safety. She read the NRC mission:

NRC Mission:

The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.

DR. FINAN highlighted the NRC principles of good regulation:

NRC Principles of Good Regulation:

Independence
Openness
Efficiency
Clarity
Reliability

DR. FINAN explained that the NRC philosophy of defense-in-depth is a key part of how NRC oversees safety and approaches the

design and oversight of nuclear facilities. This approach has multiple independent, diverse, and redundant layers of defense, so no single layer or system is relied upon exclusively. The graphic on the right provides more detail on how the NRC performs its oversight function throughout the lifecycle of nuclear power plants. The process involves:

1. Regulations and Guidance: The NRC develops regulations and guidance for applicants and licensees that promote nuclear safety.
2. Licensing, Decommissioning and Certification: The NRC is responsible for licensing or certifying applicants to use nuclear materials, operate nuclear facilities, and decommission facilities.
3. Oversight: An NRC inspector is always onsite to oversee and assess licensee operations and facilities to ensure compliance with NRC requirements.
4. Operational Experience: The NRC oversees all reactors in the US, so any opportunities to improve are shared with other reactors. What is learned in one plant is applied to others.
5. Support for Decisions: The NRC conducts research, holds hearings, and obtains independent reviews to support its regulatory decisions.

[3:52:57 PM](#)

DR. FINAN advanced to slide 7 and described the basics of nuclear energy safety. She acknowledged that there were other goals and concerns, but she was focusing on preventing the release of radioactive materials. She spoke to the following:

- Goal: Prevent offsite release of radioactive materials
- Risk = likelihood of event x consequences or severity
- Primary concern is damage to fuel and subsequent release of radioactivity.
- Several possible causes of problematic fuel damage exist. Most relate to overheating.

[3:55:04 PM](#)

SENATOR MYERS asked if the primary concern with overheating was that the reactions speed up and potentially get out of control.

DR. FINAN said the issue is that the heat can cause the cladding on the fuel pellet to degrade or melt and radioactive material

is released into the water and potentially other parts of the system.

[3:56:23 PM](#)

DR. FINAN advanced to slide 8 to discuss preventing fuel damage.

Control Reactor Power

Traditional approaches

- A key element is to design the reactor core so that the physics causes the reactor to shut down when something goes wrong. This is referred to as a negative temperature coefficient of reactivity, which means that as the reactor gets hotter, reactivity reduces and fission starts to shut down. This is referred to as a negative temperature coefficient of reactivity, which means that as the reactor gets hotter, reactivity reduces and fission starts to shut down.
- Mechanical shutdown approaches include inserting control rods with neutron absorbers into the core of the reactor to stop the fission. Boron injection into the cooling water is another traditional approach that absorbs neutrons that shuts down fission and prevents runaway chain reactions.

Innovations and Enhancements

- This includes the traditional approaches plus improvements such as online refueling. This allows lower excess reactivity in the reactor core and decreases the potential to have a runaway chain reaction. She highlighted that there have been no instances of runaway chain reactions in commercial power in the US.

DR. FINAN explained that the fission and reactor can be shut down, but the radioactive material in the reactor continues to produce heat as it decays. When a reactor is shut down, about 6.5 percent of the full power heat is still being produced as decay heat. An hour and a half later there is about 1.5 percent of full power, and after a day there is about 0.4 percent of full power heat. That heat needs to be removed to prevent the fuel from being damaged and the release of radioactive fission products into the core of the reactor. The heated water in the core boils off and needs to be replaced.

DR. FINAN described the traditional and enhanced ways of maintaining cooling to prevent fuel damage.

Maintain Cooling

Traditional approaches

- High- and low-pressure systems to injection water into the core of the reactor. Water can also be circulated through the containment system to bring the temperature down.
- Backup diesel generators are used to operate the pumps in the event that electric power is lost.

Innovations and Enhancements

- Gravity-driven backup cooling is a passive approach to bring water to the reactor without the need to rely on pumps that require electricity
- Battery backups to ensure that key controls and valves work properly if the power goes out
- Passive natural circulation approaches that circulate water or air to remove heat without electricity
- Coolants with higher heat capacity, high boiling point, and low-pressure operation to prevent coolant loss. Sodium, lead, and salt can take a lot more heat than water. They operate at lower pressure and don't readily boil off or try to escape. A lot of advanced reactors operate at very low pressure.
- The goal is to achieve increased or indefinite coping time without electric power. A major issue with Fukushima was the loss of power so pumps didn't operate. A key safety feature of advanced reactors is they are able to function without electric power for a certain amount of time.
- Simplified design improves outcomes because there are fewer things to go wrong
- Automation to reduce reliance on operator actions

[4:05:38 PM](#)

SENATOR MYERS asked if the water to cool a reactor could come right out of a river.

DR. FINAN answered yes, or it could come from tanks, depending on the site and design of the reactor. For a gravity-driven system, tanks of water at a given height allow the water to flow by gravity to cool the system.

DR. FINAN advanced to the chart on slide 9 to review the traditional and enhanced procedures for confining radioactive materials.

Physical Containment/Confinement

Traditional approaches

- Use large concrete or steel containment structure that can withstand internal pressure from steam release or other impacts as well as external pressures or impacts.
- Maintain active systems to manage hydrogen buildup. When a water reactor loses coolant, reactions can take place that cause free hydrogen to be released into the containment system. There are active systems that work well to eliminate the hydrogen so it does not cause a fire.

Innovations and Enhancements in Advanced Reactors

- Low pressure operation. Use coolants that can be used at very low pressure prevents the coolant from escaping or materials to be dispersed. Steam seeks more space whereas sodium and lead do not.
- Manage chemical interactions and minimize hydrogen buildup. For example, accident tolerant fuels in water reactors don't have the same tendency to produce hydrogen under exigent conditions. Avoiding hydrogen buildup is a way to eliminate the need to use active systems.
- Use of advanced fuels such as TRISO fuel. It is an innovative fuel design that retains the radioactive materials.

Reduce inventory available for release

Innovations and Enhancements in Advanced Reactors

- Higher efficiency operation. Most advanced reactors need less fuel to produce the same amount of energy.
- Use smaller units such as microreactors. They have much lower potential to release because they have lower inventory of radioactive materials.
- Use online refueling and/or the removal of fission products during operation. Instead of refueling every 18-24 months, remove materials consistently so they aren't available to be released if something goes wrong.

[4:09:45 PM](#)

SENATOR MYERS referenced an earlier presentation that indicated that microreactors are housed in three or four container units. His understanding of the refueling process was that the reaction chamber was within a container and once that ran out it would be removed and replaced with another container. He asked if she was talking about that process.

DR. FINAN said that is a common model for very small reactors that work for years and then are removed and replaced or sent back to be refueled at a centralized location.

She said she was talking about reactors that are at least 50 MW electric and more commonly 50-100 MW electric that are refueled while operating. Online refueling uses fuel like TRISO fuel that has a pebble design. The pebbles drop through the core and the spent fuel pebble is removed from the bottom. Fresh fuel pebbles can be put in or the spent pebble can be recycled as appropriate. Similarly, molten salt reactors have mechanisms to remove some of the radioactive fission products during operation. She noted that this process was different than what he described and was unlikely to be used in a remote location or a very small reactor.

[4:11:44 PM](#)

DR. FINAN advanced to slide 10. She explained that tristructural isotropic (TRISO) coated particle fuel is designed to retain fission products in the fuel as opposed to a fuel pebble that has a cladding that can crack and leak and release radioactive material into the water. TRISO fuel maintains its structural integrity so the fission products are retained in the fuel even in temperatures as high as 1,600 degrees Celsius, which are accident conditions. This is the heart of the safety basis for high temperature gas reactors or other reactors that use TRISO fuel. It has been qualified and developed over the last couple of decades in the US, and longer in locations outside the US.

DR. FINAN advanced to slide 11 and reviewed the highlights of the presentation:

- Civilian nuclear power is regulated by the U.S. NRC
- Most safety measures focus on preventing damage to the fuel or release of radioactive materials if damage should occur
- Advanced reactors include safety enhancements and innovations that rely more on inherent and passive features and less on active engineered systems
- Both traditional and advanced systems implement a defense-in-depth philosophy

[4:14:01 PM](#)

CHAIR HUGHES reminded the members that the defense-in-depth philosophy involves "independent, diverse, and redundant layers for safety purposes."

CHAIR HUGHES asked if there was a metric that Alaska communities could use to evaluate the safety and environmental protection features of different microreactors, or if she and other scientists had identified the most promising design.

DR. FINAN suggested looking to the US Nuclear Regulatory Commission (NRC) for an independent assessment of safety. All the advanced microreactors have slightly different approaches for achieving safety outcomes, but they all meet the gold standard of the NRC.

CHAIR HUGHES asked whether the Nuclear Regulatory Commission had any kind of scoring system so an Alaskan community would have a better understanding of what would fit in a particular location.

DR. FINAN answered that NRC does a lot of deep analysis of accidents, and that information will be available as innovators move through the regulatory process. If Alaska were to develop particular priorities, there are opportunities to ensure those are sufficiently analyzed. NRC has the capability of looking at and analyzing the impacts of a particular reactor in the context of the environmental sensitivities of the particular site in Alaska.

[4:18:00 PM](#)

CHAIR HUGHES invited Dr. Parisi, whose specialty was safety, to speak to the last question.

CARLO PARISI, PhD., Scientist, Idaho National Laboratory, Idaho Falls, Idaho, agreed with Dr. Finan's response that there are several metrics available to evaluate the safety of different technologies. The US has very good safety standards and these advanced reactor designs have achieved the very low, 10^{-7} probability of core damage. He acknowledged that some reactor designs were more mature than others, but that didn't mean that the newer technologies were less safe because all reactors deployed in the US have to adhere to the exacting standards for safety.

DR. PARISI acknowledged that some reactor designs, such as light water reactors, were more mature than others, but that doesn't mean they are less safe because all reactors deployed in the US must meet uniform and.

[4:21:13 PM](#)

CHAIR HUGHES asked what it means to have a 10^{-7} probability.

DR. PARISI answered that it's equivalent to having an event every 10 million years; the probability of an event that's 10 to -8 would be equivalent to one in 100 million years. The current reactor designs are magnitudes safer than the first reactors that were developed in the 1960s or 1970s.

[4:22:35 PM](#)

CHAIR HUGHES asked how he would compare the US NRC safety standards to other parts of the world.

DR. PARISI answered that the US NRC is the gold standard.

CHAIR HUGHES asked if the Idaho National Laboratory was available to assist communities in Alaska that were interested in exploring the use of micronuclear reactors and comparing different design options.

DR. PARISI answered yes; the Idaho National Laboratory has plenty of scientific expertise to provide that help.

SENATOR MYERS asked if any of these advanced reactors designs had been extensively tested to operate in cold climates.

DR. PARISI answered yes; a light water reactor was deployed in Siberia. The designer has to do extensive study and have a clear understanding of the meteorological conditions of the site where the reactor will be installed.

CHAIR HUGHES asked Dr. Sabharwall to add his perspective about how Alaska communities might evaluate particular microreactor designs in terms of safety and environmental protection.

[4:26:22 PM](#)

PIYUSH SABHARWALL, PhD. Senior Staff Scientist, Idaho National Laboratory, Idaho Falls, Idaho, stated that in his current role as microreactor technical lead, he has been working with a team of scientists to understand load technology readiness levels. To the question about deploying a reactor in a cold climate, he said his team was looking at using a thermosyphon (a heat pipe) to remove heat from the core of a reactor to the power conversion unit to produce power. He agreed with Dr. Parisi that a microreactor could be studied to determine its suitability under different conditions and locations.

CHAIR HUGHES asked Gwen Holdmann to tell the committee about what she learned about the location of the reactor she described

during the last hearing that Russia had deployed on a barge not far from Alaska.

[4:29:07 PM](#)

GWEN HOLDMANN, Director, Alaska Center for Energy and Power (ACEP), University of Alaska Fairbanks, Fairbanks, Alaska, advised that the barge was located about 575 miles from Point Hope. She added that reactors had been installed in the Arctic by several countries, but the mobile reactor designs Russia was exploring are quite different in terms of design and deployment compared to the US.

CHAIR HUGHES asked Dr. Finan if there was cause for concern about this technology.

Dr. Finan answered that it's a light water reactor, so it does not have any of the enhancements that are seen in the advanced reactor designs, but that design reflects many thousands of reactor years of experience. She also pointed out that light water reactors were originally developed for use on submarines so there is an abundant amount of water for a heat sink.

[4:31:40 PM](#)

Dr. Parisi advised that the reactor design on the barge is the same as those on Russian icebreakers. He wasn't familiar with the plant that was installed on the barge and whether or not it was a passive system. Nevertheless, it would be able to operate at the same level of safety as other light water reactors deployed around the world.

[4:33:27 PM](#)

CHAIR HUGHES thanked the presenters and held SB 177 in committee.

SB 172-PROPERTY TAX EXEMPTION

[4:33:31 PM](#)

CHAIR HUGHES announced the consideration of SENATE BILL NO. 172 "An Act increasing the residential property tax exemption."

[4:34:25 PM](#)

NICK MOE, Staff, Senator Bill Wielechowski, Alaska State Legislature, Juneau, Alaska, introduced SB 172 with a PowerPoint, "SB 172 An Act Increasing the Residential Property Tax Exemption." He began with slide 2, discussing the highlights of property tax relief reflected in SB 172:

- SB 172 increases the residential property tax exemption from \$50,000 to \$75,000
- Optional tool for local communities to use to reduce tax burden
- Increased exemption amount equals more than \$400 in annual savings to average homeowner
- More than \$12,000 in savings over the life of a 30-year residential mortgage

MR. MOE described why property tax relief is needed:

- Property taxes have dramatically increased
- The cost of living in Alaska has increased the last few decades as well
- Average income has not even doubled during the same time

MR. MOE spoke to the property tax burden SB 172 seeks to remedy:

- Anchorage saw the second largest property tax growth in the country between 2019 and 2020
- Property assessment cards were sent out recently in Anchorage, Mat-Su, and North Star Borough. Some property owners saw 10% increases in appraisals or more.
- Many Alaskans are looking for solutions to increasing property taxes

MR. MOE provided some of the history of the property tax exemption:

- On August 28, 2012, the Alaskan voters passed Proposition 1, Property Tax Exemption Act
- Prop 1 Increased the residential property tax exemption from \$20,000 to \$50,000
- Six boroughs and municipalities now take advantage of the exemption set by the state.
- 54% of Alaskans enjoy property tax relief through this exemption

[4:37:10 PM](#)

CHAIR HUGHES asked how many boroughs and municipalities that have property tax were not taking advantage of the exemption.

MR. MOE answered that 12 of the 18 boroughs that are allowed to collect property taxes are not taking advantage of the exemption.

CHAIR HUGHES asked if that was both boroughs and municipalities.

MR. MOE said he would follow up with a definitive number.

MR. MOE turned to the state map on slide 6, that identifies six boroughs and communities that take advantage of the \$50,000 property tax exemption. These are: North Slope Borough, Fairbanks North Star Borough, City of Valdez, Municipality of Anchorage, Kenai Peninsula Borough, and Bristol Bay Borough.

MR. MOE mentioned the recent media coverage regarding property tax values, including an article in the News Miner last week that described dramatic increases. One homeowner saw the assessed value of their home double from one year to the next.

MR. MOE advanced to the US map on slide 8 to illustrate that property tax is the largest tax that most Alaska home owners pay. The state is ranked second nationwide.

MR. MOE displayed the chart on slide 9 that shows that Alaska ranked second in the nation for the highest property tax increase from 2019 to 2020. He also provided charts to show increases in the price of gasoline and natural gas compared to the slow growth of personal income over the last 20 years.

[4:39:16 PM](#)

MR. MOE concluded the presentation with the following highlights:

- Property tax relief is needed now
- The cost of living for Alaskans has increased dramatically
- SB 172 increases the allowable residential property tax [exemption] from \$50,000 to \$75,000
- Optional tool for local communities to use to reduce tax burden, most Alaskans utilize current exemption
- Homeowners could save \$400 a year, and \$12,000 over the life of a mortgage

[4:39:39 PM](#)

CHAIR HUGHES asked him to go through the sectional analysis.

MR. MOE stated that the bill has just one section, which increases the property tax exemption from \$50,000 to \$75,000. It is tied to the Consumer Price Index (CPI).

CHAIR HUGHES observed that ten years ago the exemption was based on CPI for Anchorage and SB 172 changes that to the CPI for urban Alaska.

MR. MOE agreed that was his understanding.

SENATOR HUGHES offered her understanding that the Mat-Su Borough was not taking advantage of the exemption.

Mr. Moe agreed.

[4:41:45 PM](#)

SENATOR GRAY-JACKSON noted that she was a co-sponsor. She corrected the record, advising that a homeowner whose assessment doubles will see their tax assessment double as well.

[4:42:27 PM](#)

SENATOR MYERS referred to the US map that shows that Alaska ranks second in the nation for property tax burden. He noted that Alaska has a local property tax and a petroleum property tax that is assessed at both the borough and state level, depending on location. He wondered where Alaska would rank if the petroleum tax were removed from the calculation.

MR. MOE offered to follow up with the information.

SENATOR MYERS asked if Anchorage had a tax cap.

MR. MOE answered yes.

SENATOR MYERS noted that Fairbanks also had a tax cap. He offered his view that the discussion wasn't so much about property tax relief as tax shifting because taxing jurisdictions would still try to raise the same amount of revenue. The policy call is whether or not to shift the tax burden from residential property owners to commercial property owners.

[4:44:37 PM](#)

MR. MOE responded that each borough assesses differently according to what works best for that jurisdiction. He acknowledged that with a tax cap, there will be a little redistribution as opposed to an overall decrease.

SENATOR GRAY-JACKSON explained that the tax burden is spread throughout the entire tax base and everybody's tax burden increases based on the assessment.

SENATOR MYERS said it will be interesting to see what happens in areas like North Pole that have both property and sales tax. If the dollar amount coming in from residential property tax is less, he wondered whether the mill rate or the sales tax would be increased to make up the difference.

[4:46:43 PM](#)

CHAIR HUGHES pointed out that this was optional and North Pole might decide not to take advantage of the exemption. She questioned whether Palmer would be interested because it was trying to attract more businesses. By comparison, Anchorage has a much broader business base so each individual business wouldn't see that much increase. She noted that the bill was currently written so that a local assembly or city council could decide to take advantage of this option. She offered her perspective that it was a good idea to allow the voters as a whole decide on the merits of a tax shift. She asked whether the sponsor had considered getting voter approval.

MR. MOE said he didn't know, but would find out. To the comments about increasing the burden on commercial properties, he pointed out that in the Mat-Su and the Fairbanks North Star Borough, both residential and commercial property assessments were increasing so each group will pay more overall. He noted that assessors in different parts of the state also thought both groups would be similarly affected.

[4:50:28 PM](#)

SENATOR GRAY-JACKSON said she cares about the entire state and wants property taxes to be distributed fairly, but in District I the assessed values for commercial properties have not been what they should be for many years and this year the assessed value for residential properties increased more than 10 percent in some areas.

[4:51:13 PM](#)

SENATOR MYERS reported that his property in the Fairbanks area went up 10 percent this year and several friends saw a 25 percent increase. He noted that while a property owner has the ability to challenge the assessment, the burden is on the property owner to prove the valuation is wrong. He described that as a large power imbalance between the homeowner and the

borough. He wondered whether the sponsor would be interested in addressing the tax issue by shifting the burden of proof for property tax valuations to the borough instead of increasing the exemption for homeowners.

[4:52:27 PM](#)

SENATOR BILL WIELECHOWSKI, Alaska State Legislature, Juneau, Alaska, sponsor of SB 172, answered that he could do some research and check with local communities, but he wasn't sure that the state could regulate property tax assessments. He acknowledged that it also seemed odd that the state could regulate the size of the property tax exemptions that local communities can offer.

SENATOR MYERS relayed that state statute places the burden on the homeowner to prove the borough's assessment of a property was wrong.

[4:53:55 PM](#)

SENATOR GRAY-JACKSON related that in Anchorage assessments are typically based on the assessed value of nearby properties. The municipal property appraisal division works with individuals who question their assessments and minor disagreements are generally resolved before the matter goes to the next level.

CHAIR HUGHES noted that the presentation indicated that the average savings would be \$400 per homeowner. Using Anchorage as an example, she asked what the average property tax increase will be for homeowners based on the higher assessments and, should the bill pass, what the average increase would be for the higher assessed residential and commercial properties.

[4:55:19 PM](#)

SENATOR WIELECHOWSKI answered that he didn't know what the average increase would be with the new property tax assessments, because the Anchorage Assembly sets the mill rate. The estimated savings of \$400 was based on what the tax would be under the current mill rate and increasing the exemption from \$50,000 to \$75,000.

[4:55:53 PM](#)

CHAIR HUGHES asked, if the assessments go up 13 percent on average, will the property taxes also increase 13 percent.

SENATOR WIELECHOWSKI answered not necessarily; it depends on the mill rate.

CHAIR HUGHES narrowed the question to include the same mill rate.

SENATOR WIELECHOWSKI deferred the question to Senator Gray-Jackson.

[4:56:30 PM](#)

SENATOR GRAY-JACKSON responded with a hypothetical example. If a residential assessment increased \$100,000 and the mill rate is 14.5 percent, the homeowner would pay an additional \$1,450 in taxes.

CHAIR HUGHES asked the sponsor if he had considered asking the voters to weigh in.

SENATOR WIELECHOWSKI stated that he had no strong feelings one way or the other.

CHAIR HUGHES asked Senator Gray-Jackson if anything in the Municipality of Anchorage charter would automatically send a question like this to the voters.

[4:58:18 PM](#)

SENATOR GRAY-JACKSON answered she didn't think so, but if it did go to the voters she was sure it would pass with at least a 70 percent margin.

CHAIR HUGHES asked the sponsor what kind of support or opposition he'd heard.

SENATOR WIELECHOWSKI said he had not heard of any formal opposition, but he would defer to Mr. Moe.

[4:58:48 PM](#)

MR. MOE added that there had been a lot of support for the bill and realtors were eager about the potential to lower property taxes. He'd heard no formal opposition.

CHAIR HUGHES asked if chambers of commerce or the Alaska Municipal League had weighed in.

MR. MOE answered no.

[4:59:13 PM](#)

SENATOR MYERS commented that it was a concern if realtors were excited because they were likely thinking it would result in the increase in both homes sales and valuations.

SENATOR WIELECHOWSKI offered his experience that realtors typically oppose property tax increases because people are more likely to purchase when the prices are lower. He acknowledged the possibility that future property tax appraisals might be affected.

MR. MOE offered his perspective that in smaller communities, lowering the homeowner property taxes with an exemption helps to encourage people to stay in the community because they are not priced out of their homes.

[5:00:39 PM](#)

CHAIR HUGHES held SB 172 in committee.

[5:01:30 PM](#)

There being no further business to come before the committee, Chair Hughes adjourned the Senate Community and Regional Affairs Standing Committee meeting at 5:01 p.m.