

**ALASKA STATE LEGISLATURE  
SENATE RESOURCES STANDING COMMITTEE**

April 19, 2006

3:38 p.m.

**MEMBERS PRESENT**

Senator Thomas Wagoner, Chair  
Senator Ralph Seekins, Vice Chair  
Senator Ben Stevens  
Senator Fred Dyson  
Senator Bert Stedman  
Senator Kim Elton  
Senator Albert Kookesh

**MEMBERS ABSENT**

All members present

**OTHER MEMBERS PRESENT**

Senator Hollis French

**COMMITTEE CALENDAR**

SENATE BILL NO. 278

"An Act creating the Alaska Climate Change Task Force; and providing for an effective date."

MOVED CSSB 278(RES) OUT OF COMMITTEE

Agrium Blue Sky Phase 2 Presentation

SENATE JOINT RESOLUTION NO. 17

Urging the United States Department of Justice and the Alaska Department of Law to identify all natural resource damages from the Exxon Valdez oil spill that were unanticipated at the time of the 1991 settlement, to develop plans to remedy the damages, and to present the ExxonMobil Corporation with a request for the full \$100,000,000 that is available through the "Reopener for Unknown Injury" clause of the 1991 civil settlement to carry out these plans.

SCHEDULED BUT NOT HEARD

**PREVIOUS COMMITTEE ACTION**

BILL: SB 278

SHORT TITLE: ALASKA CLIMATE CHANGE TASK FORCE

SPONSOR(s): SENATOR(s) OLSON

02/13/06 (S) READ THE FIRST TIME - REFERRALS  
02/13/06 (S) RES, FIN  
04/12/06 (S) RES AT 3:30 PM BUTROVICH 205  
04/12/06 (S) Heard & Held  
04/12/06 (S) MINUTE(RES)  
04/19/06 (S) RES AT 3:30 PM BUTROVICH 205

**WITNESS REGISTER**

Senator Donny Olson  
Alaska State Capitol  
Juneau, AK 99801-1182  
**POSITION STATEMENT:** Sponsor of SB 278

Dr. Glenn P. Juday  
Professor of Forest Ecology  
University of Alaska Fairbanks  
Fairbanks, AK  
**POSITION STATEMENT:** Supported SB 278

DR. ROLAND MAW, Executive Director  
United Cook Inlet Driftnet Association (UCIDA)  
Kenai, AK  
**POSITION STATEMENT:** Supported SB 278

BRIAN DAVIES, former chief of BP operations  
Prudhoe Bay, AK  
**POSITION STATEMENT:** Supported SB 278

BILL BOYCOTT, General Manager  
Agrium Kenai Nitrogen Operations  
Kenai, AK  
**POSITION STATEMENT:** Presented Agrium Blue Sky Phase 2 Summary

**ACTION NARRATIVE**

**CHAIR THOMAS WAGONER** called the Senate Resources Standing Committee meeting to order at [3:38:24 PM](#). Present at the call to order were Senators Ben Stevens, Bert Stedman, Ralph Seekins, Kim Elton, Albert Kookesh, Fred Dyson, and Thomas Wagoner.

**SB 278-ALASKA CLIMATE CHANGE TASK FORCE**

CHAIR THOMAS WAGONER announced SB 278 to be up for consideration.

SENATOR OLSON, sponsor, recapped that SB 278 establishes a task force to review climate changes, determine the implications and make recommendations. He introduced experts in the field who would give their perspective.

DR. GLEN JUDAY, Professor of Forest Ecology, University of Alaska, Fairbanks (UAF), said he would pose five questions and provide five answers.

1. Is it warmer in Alaska? Yes it is and how much warmer depends on: 1) location, 2) season- warming is a bit faster in the winter than in the summer, and 3) time frame - the National Weather Service tracks trends in 30 year blocks that cover complete decades. For example 1971-2000 gives a 30 trend showing that the temperature is up about 2.5 degrees F for most stations in Alaska. Barrow has the strongest warming with an increase of over 4 degrees F.

2. What is making Alaska warmer? Solar variability, volcanoes, green house gases and global dimming drive temperature changes on the planet. The heat delivered by ocean currents and El Niños have a particular affect in Alaska and they have become more frequent, stronger and longer lasting. Therefore, Alaska is warmer.

3. Is the warming affecting anything we might care about? Yes. The average glacial loss in Alaska amounts to about 50 feet of water and the Arctic sea ice is at a minimum. Currently there are ice-free passages in the Arctic in the summer and the trend is for the ice to be completely gone by summer's end within 3 or 4 decades. Lakes are drying, river low-flow episodes are more common and river temperatures are rising. The permafrost is warming and some is thawing. Trees are growing less because they are short of water and warm weather phenomena such as forest fires and insect infestations are becoming more common and are affecting more forests.

4. Will it continue to get warmer? The best evidence indicates that if we stop all greenhouse gas now, we would still face 50-70 years of additional strong warming. If greenhouse gas emissions continue to accelerate, there is a straight-line relationship between how much more warming there will be.

5. How do we know we can trust the people who are telling us this? Dr. Juday cited an article he wrote for Agroborealis, a research magazine published by the UAF Agriculture and Forestry

Experiment Station (AFES). In 1982 there was a national level conference in Alaska that examined the possibility of climate warming. He took those predictions and compared them with what has actually happened in 2006 and they are right on target.

DR. JUDAY said a next reasonable step is to get the people with the information together with the people that need to know. That's what SB 278 does and it sounds like a good plan, he concluded.

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SENATOR BERT STEDMAN commented ice ages come and go and he finds the information interesting in light of the fact that Ketchikan had record rainfall last year. At least in Southeast we're not faced with drought conditions, he said.

DR. JUDAY responded it's difficult to get all the nuances in a short presentation, but there's a general principle that when you affect the earth climate system in a measurable way, other places can experience change that may be the opposite.

He related that the steering currents that bring storms ashore have not been going to most of the Alaska landmass, but they have been going to other places in Alaska with more frequency and intensity.

SENATOR SEEKINS asked where global warming was this last January in Fairbanks.

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DR. JUDAY explained that the Arctic Ocean basin has been much warmer for the last two or three years and that process accelerated last January when lots of warm air moved in. Air had to move out and go somewhere and that just happened to be right over Fairbanks. He noted that the Arctic Ocean sea-ice has set a minimum record every month for about the last year and is on track for another record melt-back.

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SENATOR BEN STEVENS asked if we are at the end of a glaciation period and if so, when it started.

DR. JUDAY replied there were four major episodes starting about 1 million years ago. The most recent was the Wisconsin glaciation. It began about 70,000 years ago, reached a peak about 35,000 years ago, and ended rather definitively about 12,500 years ago.

SENATOR BEN STEVENS asked if the glaciers in Alaska are the remnant of the last episode.

MR. JUDAY explained that the ice in the glaciers isn't that old since it's continually renewed and there have been warming and cooling episodes, but in general the answer is yes. The portion of the land surface that is covered with ice was much greater during the ice age than it is now and if it gets a whole lot warmer it will get smaller yet.

SENATOR BEN STEVENS said out of curiosity he'd like to know the dates of the other three glaciations.

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MR. JUDAY replied he didn't recall all the dates off hand.

SENATOR DYSON asked if any icepacks are increasing at this time.

MR. JUDAY replied there are a few in Alaska and a couple in other places, but they represent a distinct minority. Generally they are characterized by having the gathering areas high elevations so the main effect of the warming that we're experiencing is to increase snowfall in those high elevations.

In Greenland the last four years of observation shows a higher rate of collapse than was ever anticipated. At current temperatures it now looks inevitable that it will substantially increase the sea level. In Antarctica the record is quite short and up until 2003 it wasn't possible to confirm a shrinking trend. Since then it is possible to confirm that substantial ice loss is occurring.

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DR. ROLAND MAW, Executive Director, United Cook Inlet Driftnet Association (UCIDA), outlined his academic background in ecology, wildlife management, forestry and his current employment relating to fisheries. He expressed support for the previous comments and gave some insight as to why the task force is a good idea. With the current warming trend various models predict a potential 10-foot rise in sea levels in the next three decades. If the models are correct, the impact on the fishing industry will be monumental. Estuaries will flood so that nursery areas for salmon and other species will be lost; erosion will occur from Nikiski to Homer; and infrastructure for loading and unloading fishery products will be affected. The proposed task force is a good vehicle for looking at these issues.

He noted the current problems with salmon returns in the MatSu Valley. Stream flows are smaller and the summertime water temperature is high enough to be lethal for migrating smolt and adults. Last summer for the first time some lakes in the MatSu experienced anoxic conditions below 3 meters. The lack of oxygen in the water column is a result of warming temperature, increased vegetation, and the subsequent dying and rotting of vegetation. Salmon mortality shows up quickly in the anoxic areas.

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DR. MAW suggested the committee consider adding representation to the task force to include the industries that make a living on, around, and from the water. He reiterated his agreement with the previous speaker and said global warming is happening and we have to deal with it.

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SENATOR STEDMAN asked if tectonic rebound is occurring in the Kenai Peninsula.

DR. MAW replied he did not know.

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BRIAN DAVIES, engineer and former chief of BP operations at Prudhoe Bay, said that over the last 35 years he has noticed a distinct warming phase in the climate, which should not be confused with weather. Alaska is at the leading edge of this global warming and is experiencing change at between two and four times the global average.

The trend is clear and it would be imprudent not to plan for it to continue. Furthermore, it is likely that forestry, marine shoreline, fishing, natural resource development, and the infrastructure of towns and villages will be significantly impacted. Mr. Davies extended his full support to the idea of establishing a broad based and temporary task force to gather information and develop a business plan to deal with the challenges of this trend and hopefully identify some opportunities. SB 278 establishes a vehicle to begin planning for eventualities.

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SENATOR SEEKINS referenced page 2, line 2, and asked if the ex-officio members would be voting members.

SENATOR OLSON replied to the best of his knowledge, yes.

SENATOR SEEKINS asked why the Alaska Conservation Alliance (ACA) has a dedicated seat and what scientific expertise it brings to the table.

SENATOR OLSON replied the ACA would have personnel that have a perspective if not expertise that might be helpful to the task force. He clarified that the Senate president and House speaker would appoint all the members.

SENATOR SEEKINS asked who ACA is.

SENATOR OLSON replied it is a group of people that is interested in conservation ideas and issues such as climate change.

SENATOR SEEKINS questioned whether the group didn't have a pre-established position.

SENATOR OLSON replied not necessarily.

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SENATOR SEEKINS asked if the primary concern is to look at the effect of warming trends in just the northern regions of the state.

SENATOR OLSON replied the idea is to look at all areas, but there are differences across the state. As the previous witness pointed out, the trends are clear and it would be imprudent not to plan and make recommendations to meet the changes that are coming.

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SENATOR SEEKINS asked how the selection of the chair would take place and whether any one of the appointees would qualify.

SENATOR OLSON replied any one of the 13 appointees would be eligible. Oftentimes taskforce members decide who will be chairperson.

SENATOR SEEKINS said his task force experience is that the chair is typically a legislator. He was curious if that was the intent or whether it would be open to everyone including a member of the Alaska Conservation Alliance.

SENATOR OLSON responded it would depend on the good judgment of the Senate president and the House speaker to make sure the chair is well qualified for the task.

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SENATOR STEDMAN recommended Senator Olson be the chair.

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SENATOR SEEKINS said his preference for chair would be a legislative member who has a particular interest in the subject.

CHAIR WAGONER remarked it would be up to the president and the speaker to make sure that happens.

SENATOR ELTON said his understanding is that the task force would select the chair. He noted that four of the members are legislators, which is a significant voting block if they wanted a legislator to be the chair.

SENATOR SEEKINS moved to amend page 2, line 23, to select a chairperson from among the members of the legislature.

SENATOR ELTON objected primarily for procedural reasons. He suggested it might be best to leave the decision to the next committee where SB 278 will meet the House bill, which he suspected would be the vehicle.

SENATOR SEEKINS maintained the view that a member of the legislature ought to be the chair and he wanted that clarified in this committee.

SENATOR KOOKESH asked if it would affect funding.

CHAIR WAGONER responded it would be up to the Senate president and the House speaker to fund the task force.

SENATOR KOOKESH said he'd support the amendment if it meant that funding would be more likely.

SENATOR SEEKINS noted that the fiscal notes were fairly substantial.

CHAIR WAGONER said that's why the bill is going to the Finance Committee.

SENATOR OLSON said he was initially taken back by the size of the fiscal notes, but believes that the \$68,000 for personal

services could be cut significantly. That would bring the total down to a more appropriate number, he said.

CHAIR WAGONER brought the discussion back to the proposed amendment.

SENATOR KOOKESH asked the sponsor to comment on the amendment.

SENATOR OLSON replied he recognized that this could be a contentious point and he would defer to the committee.

SENATOR SEEKINS reviewed the fiscal notes and said the chair's responsibility is to administer the budget and, in his view, that responsibility ought to fall to a member of the legislature. The chair's further responsibility is to bring order to the process, not to necessarily dominate the result. So, he said, this would in no way threaten the result or findings of the task force.

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SENATOR ELTON pointed out that the task force is charged with the duty of highlighting the issues and offering recommendations to the legislature and selection of the chairperson is a most important initial decision. Because of negative public perception he cautioned against restricting the selection to one among four people rather than one among 13 people.

SENATOR ELTON maintained his objection.

CHAIR WAGONER commented that with the exception of department chairs, very few university officials have budget experience.

SENATOR KOOKESH expressed the view that the task force ought to be able to pick the chair.

CHAIR WAGONER said legislators are elected to control funds and he believes that in most cases a legislator would be more conservative and control funds better than another member.

A roll call vote was taken and Amendment 1 passed with 5 yeas and 1 nay. Senator Dyson, Senator Stedman, Senator Kookesh, Senator Seekins, and Senator Wagoner voted in favor and Senator Elton voted against.

SENATOR STEDMAN moved to report CSSB 278(RES) from committee with individual recommendations and attached fiscal notes. There was no objection and it was so ordered.

[4:23:20 PM](#) recess [4:26:59 PM](#)

CHAIR WAGONER announced that SJR 17 wouldn't be heard today.

**AGRIUM PRESENTATION - KENAI BLUE SKY**

CHAIR THOMAS WAGONER announced that the committee would hear the Agrium Presentation on Cook Inlet Oil and Gas in Transition.

BILL BOYCOTT, General Manager, Agrium Kenai Nitrogen Operations, presented the Phase 2 summary for the Kenai Blue Sky Project. He explained that the Kenai complex was built to convert natural gas to anhydrous ammonia and urea products for use in agricultural and petrochemical applications. About 2 percent of the product is used in Alaska, but most is destined for export with the primary markets in South Korea and Mexico.

Gas availability in Cook Inlet has been a challenge. The demand on the system is about 200 Bcf annually and at full rates the facility consumes 53 Bcf of gas. He noted that the neighboring LNG facility has the capacity for about 80 Bcf of gas. Power generation and the utility market account for another 70 Bcf.

The complex has not run at capacity since 2001 and the severe decline in availability of gas in Cook Inlet continued. In November 2005 half the facility was shut down and it's unlikely that it will be restarted on natural gas. In the last three years the employment at the facility has gone from 295 to about 160.

Gas contracts run through October 2006 but they are working to secure gas beyond that time. That's a difficult proposition thought because the decline in Cook Inlet is continuing. To keep the facility alive they have been looking at other alternatives because it would have a significant economic impact on the Kenai Peninsula and Alaska as a whole if the business were lost.

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MR. BOYCOTT said there is commercially proven technology to convert coal to feedstock for a complex like this and one of the byproducts is a significant amount of CO<sub>2</sub>. Preliminary evaluation indicates that CO<sub>2</sub> flood technology could allow recovery of an incremental 300 million barrels of oil in Cook Inlet. The Department of Energy has been working to better understand this.

SENATOR DYSON said he has heard that coal gasification plants are expensive and in the near term just a limited number will be permitted in the U.S.

MR. BOYCOTT responded these plants are clean in terms of environmental permitting.

SENATOR DYSON said his understanding is that the federal government doesn't want to move too fast because the technology is quite new.

MR. BOYCOTT replied there is significant incentive in the national energy policy to use this technology. The federal government is encouraging the use of alternate feed stocks and coal is specifically targeted. Industrial gasification and also the use of gasification for power generation is something that is encouraged now. The federal government has made grants available for these facilities, but the funding is limited. Agrium is not competing for those dollars, but it would take advantage of allowances for tax supports should this commercial opportunity move forward.

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SENATOR DYSON asked if Agrium would come to the legislature for funding.

MR. BOYCOTT replied no. Usibelli Coal Mine and Agrium worked together and on an initial screening and determined the project should move forward. At that time the two companies agreed to fund an economic feasibility study, which will be complete within the 30 to 45 days. At that point the outlay will be about \$4 million. Assuming they should move forward, the next step is to produce a bankable commercial document for the next phase. That means establishing firm contracts for the coal supply, for the fertilizer offtake, for the power offtake, and a lump sum turnkey engineering contract with a process performance guarantee. They could then take the deal to Wall Street for financing. To create that package it will cost about \$28 million, \$13 million of which will be the engineering work.

SENATOR DYSON asked who would build and pay for the additional electric power intertie that will be needed so Agrium can sell power back to the grid.

MR. BOYCOTT replied that would be part of the Phase 2 evaluation, but they anticipate an additional charge of about 1/2 cent per kilowatt-hour. Agrium is currently evaluating how

much power it can export because the facility itself consumes 90 megawatts and it's unlikely that they can get that with the existing grid. They have begun looking at what it would cost to fund the intertie in order to take that power up to the grid and they believe they will be able to export about 60 megawatts. In the timeframe under consideration they would probably be restricted to the existing southern intertie design because developing a new design and getting permits by 2011 would be very difficult. If the intertie were to go in, it would allow the export of between 130 and 180 megawatts depending on what happens with other production on the peninsula.

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To date it looks as though most of the coal supply will come from Beluga with incremental capacity from Fairbanks [Healy]. Transportation from Healy to Anchorage will be by rail and then barges will run from Anchorage and Beluga.

The technology is coal gasification with a pulverized coal power plant to support energy needs. He noted that at present they are looking at new environmental control technologies on the power plant that allow both CO<sub>2</sub> sequestration and environmental performance.

A point that is sometimes misunderstood is that the plant does not produce natural gas. It produces hydrogen and CO<sub>2</sub> and nitrogen is a byproduct of the air separation unit. In this facility some portion of the hydrogen and nitrogen combine into ammonia then some CO<sub>2</sub> combines with ammonia to urea. The facility would be run such that capacity would be increased by 20 percent with all the ammonia and urea being produced from coal. Also, significant CO<sub>2</sub> would be available to support an enhanced oil recovery operation in Cook Inlet. The current estimate is 7,000 tons per day without CO<sub>2</sub> recovery off the power plant.

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With 300 employees at the facility, the indirect employment benefit is estimated to be 900 positions. In conjunction with the mine the direct and indirect employment estimate is 2,000 jobs, which is significant. Current plans are to double the current facility, which sits on 80 acres and has a replacement value of \$1.5 billion. Obviously that is a significant employment opportunity for Alaska.

Although power generation equipment is aging and future dependence on natural gas is potentially problematic for the state, it's still challenging to support the expenditure of \$600

million to \$700 million for a coal power plant in Alaska with a 900-megawatt grid. Nevertheless they believe this project has benefit to the state. The Beluga reserve is opened; employment on the Kenai Peninsula is increased; the most competitive power generation in Alaska is supported; and the energy base is diversified.

MR. BOYCOTT said he and Mr. Johnson meet with the engineering firms next week to review Phase 1 work. Once that evaluation is complete they will look for funding to initiate Phase 2 by July. If the opportunity is not strong enough, they will continue to search for natural gas and watch the peninsula business prepare to wind down.

MR. BOYCOTT said they are asking for state and federal support for Phase 2, which is estimated to be \$28 million. He has told the senior leadership team that Agrium would be required to provide a significant amount of the Phase 2 funding; a willingness to contribute the Kenai asset into the new entity; and a willingness to sign a long term agreement to ensure a market for the product. Obviously, he said, Agrium and Usibelli Coal Mine have already made a significant commitment.

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SENATOR ELTON asked if coal gasification might lock Agrium into a higher cost environment than if it took gas from a spur or bullet line coming from the North Slope.

MR. BOYCOTT said no; to move forward they must ensure that the coal basis is competitive over the long term. The plants are very efficient and on a cash basis they could compete with anything in the world. The hurdle is getting the money to build the facility.

There being no further business to come before the committee, Chair Wagoner adjourned the meeting at [4:51:40 PM](#).