ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, INTERNATIONAL TRADE AND TOURISM
March 2, 2004
10:24 a.m.

MEMBERS PRESENT

Representative Cheryll Heinze, Chair
Representative Pete Kott
Representative Nancy Dahlstrom
Representative Vic Kohring
Representative Sharon Cissna
Representative Harry Crawford

MEMBERS ABSENT

Representative Lesil McGuire, Vice Chair

COMMITTEE CALENDAR

HOUSE BILL NO. 512
"An Act establishing the Hydrogen Energy Partnership in the Department of Community and Economic Development; requiring the commissioner of community and economic development to seek public and private funding for the partnership; providing for the contingent repeal of an effective date; and providing for an effective date."

- MOVED HB 512 OUT OF COMMITTEE

HOUSE CONCURRENT RESOLUTION NO. 32
Relating to information infrastructure and establishing the Alaska Information Infrastructure Policy Task Force.

- MOVED CSHCR 32(EDT) OUT OF COMMITTEE

HOUSE BILL NO. 485
"An Act relating to the powers of the Alaska Energy Authority to make grants and loans and enter into contracts; relating to the bulk fuel revolving loan fund; relating to the Alaska Energy Authority's liability for the provision of technical assistance to rural utilities; relating to the Alaska Energy Authority's investment of the power development fund; repealing the electrical service extension fund; and providing for an effective date."

- SCHEDULED BUT NOT HEARD

HOUSE BILL NO. 449
"An Act relating to the contracting and financing authority of the Alaska Industrial Development and Export Authority; authorizing the authority to issue bonds in a principal amount not to exceed $76,000,000 to finance the acquisition, design, construction, inventory, and operation of natural gas, propane air, or manufactured gas public utility facilities; and providing for an effective date."

- BILL HEARING CANCELED

PREVIOUS COMMITTEE ACTION

BILL: HB 512
SHORT TITLE: HYDROGEN ENERGY RESEARCH PROGRAM
SPONSOR(S): REPRESENTATIVE(S) CRAWFORD

02/16/04	(H)	READ THE FIRST TIME - REFERRALS
02/16/04	(H)	EDT, FIN
02/24/04	(H)	EDT AT 5:15 PM CAPITOL 120
02/24/04	(H)	Heard & Held
02/24/04	(H)	MINUTE(EDT)
03/02/04	(H)	EDT AT 10:00 AM CAPITOL 120

BILL: HCR 32
SHORT TITLE: AK INFO INFRASTRUCTURE POLICY TASK FORCE
SPONSOR(S): REPRESENTATIVE(S) KOTT

02/16/04	(H)	READ THE FIRST TIME - REFERRALS
02/16/04	(H)	EDT, FIN
02/26/04	(H)	EDT AT 5:15 PM CAPITOL 120
02/26/04	(H)	-- Meeting Canceled --
03/02/04	(H)	EDT AT 10:00 AM CAPITOL 120

WITNESS REGISTER

JAY HARDENBROOK, Staff
to Representative Harry Crawford
Alaska State Legislature
Juneau, Alaska
POSITION STATEMENT: Discussed details relating to HB 512 on behalf of Representative Crawford, sponsor.

JOE GRIFFITH, Chief Executive Office (CEO)
Chugach Electric Association

Anchorage, Alaska
POSITION STATEMENT: Testified on HB 512, saying it's the kind of forward-looking view that's needed in the state.

SUE STANCLIFF
House Majority Office
Alaska State Legislature
Juneau, Alaska
POSITION STATEMENT: Presented HCR 32 on behalf of Representative Kott, sponsor.

SUSAN DAVIS, Staff
to the Legislative Council Information Technology Subcommittee
Alaska State Legislature
Juneau, Alaska
POSITION STATEMENT: During the hearing on HCR 32, presented a two-minute audiovisual program.

STEVE WALKER
Broadband Services Department
GCI
Anchorage, Alaska
POSITION STATEMENT: Provided information related to HCR 32.

TINA PIDGEON, Vice President
of Federal and Regulatory Affairs
GCI
Anchorage, Alaska
POSITION STATEMENT: During hearing on HCR 32, provided information and made recommendations based on an earlier version; urged members to look at the current situation.

IK ICARD, Consultant
Kingston, Washington
POSITION STATEMENT: Testified in support of HCR 32.

FRED PEARCE, Ph.D., Professor of Telecommunications
University of Alaska Anchorage
Anchorage, Alaska
POSITION STATEMENT: Voiced wholehearted support for HCR 32.

WANETTA AYERS, Executive Director
Southwest Alaska Municipal Conference (SWAMC)
Anchorage, Alaska
POSITION STATEMENT: Urged support for HCR 32.

SUE COGSWELL, Director

Prince William Sound Economic Development District (PWSEDD)
Anchorage, Alaska
POSITION STATEMENT: Testified in support of HCR 32.

JASON OHLER
Juneau, Alaska
POSITION STATEMENT: Testified in support of HCR 32.

ACTION NARRATIVE

TAPE 04-13, SIDE A
Number 0001

CHAIR CHERYLL HEINZE called the House Special Committee on Economic Development, International Trade and Tourism meeting to order at 10:24 a.m. Representatives Heinze, Kott, Kohring, Dahlstrom, Cissna, and Crawford were present at the call to order.

HB 512-HYDROGEN ENERGY RESEARCH PROGRAM

Number 0080

CHAIR HEINZE announced that the first order of business would be HOUSE BILL NO. 512, "An Act establishing the Hydrogen Energy Partnership in the Department of Community and Economic Development; requiring the commissioner of community and economic development to seek public and private funding for the partnership; providing for the contingent repeal of an effective date; and providing for an effective date."

CHAIR HEINZE brought attention to the two fiscal notes: one [for $71,000] from the Department of Community & Economic Development (DCED) and a zero fiscal note from the university.

Number 0104

REPRESENTATIVE CRAWFORD, sponsor, reported that Governor Schwarzenegger of California has said he'll establish a network of outlets for hydrogen across California such that no place is more than 20 miles from an outlet. Representative Crawford remarked that Alaska has a greater potential than almost any other place in the world for hydrogen, and should get in the forefront. Saying there's money available through federal and private grants, he highlighted the need to set up an entity which can shepherd that money and get it to the scientists so

the actual potential can be known. He deferred to Mr. Hardenbrook to provide details.

Number 0195

JAY HARDENBROOK, Staff to Representative Harry Crawford, Alaska State Legislature, explained:

> Hydrogen doesn't occur naturally on earth in a pure form. We have to extract it from something else. And that does take some energy, although, in fact, currently, with extracting it from natural gas, it is more efficient as a fuel source than producing gasoline from crude oil. ... It actually is more efficient than what we're currently using to power our cars.
>
> It's not actually an energy source, but rather a means of retaining energy. ... Specifically, when we use electrolysis to extract hydrogen from water, we're just containing the energy that we've taken from another source. And that way, we can store it in hydrogen until we get it to wherever it needs to be used - currently, they're talking about automobiles, as well as fuel cells for buildings. But it can also be extracted from natural gas, as I said, crude oil, or coal. And as most of us know, we have twice ... the coal reserves of ... the rest of the United States put together.
>
> Other hydrogen partnerships and commissions: Hawaii has one, specifically for their geothermal resources, which is one of the really promising aspects here in the state of Alaska. In the Midwest, they've been analyzing wind potential - huge wind ... farms in the Midwest, with hydrogen being shipped all over the U.S. And, of course, ... California currently has Governor Schwarzenegger on board with establishing ... infrastructure for automobiles.

Number 0326

MR. HARDENBROOK continued:

> President Bush in 2003 put $1.2 billion into the federal budget for different hydrogen-research projects, and that money currently is going to the

> places that have commissions set up to ... take on those projects.
>
> The potential benefits of the market, the grants to the state, and the possibility ... of another valuable resource being shipped from Alaska far outweigh the one-time costs that are associated with this bill. Currently, DCED has a fiscal note of - one time - $71,000. What Hawaii has taken in, just in grants in one year, dwarfs that by four times. So the potential far outweighs the small initial cost, and ... from what I understand from DCED, that is just the cost of paying one grant writer for one year to get them started, and after that the grants would pay for all other costs.

Number 0407

CHAIR HEINZE asked when hydrogen cars likely will be available.

REPRESENTATIVE CRAWFORD answered:

> The future's right now. They have the cars that are able to run. And what I was told at the NCSL [National Conference of State Legislatures] last year was ... they would start selling those cars as soon as there was ... a distribution system and a supply for hydrogen. ... It's right now; it's as soon as we can get a distribution and supply of hydrogen available, there will be hydrogen cars marketed.

MR. HARDENBROOK added, "I understand that there is a prototype right now to convert current gasoline automobiles into hydrogen vehicles, and that should be on the market in the next two years." In response to a further question, he said, "Hydrogen can be used in your standard internal-combustion engine right now. All you need is a pressurized fuel tank that can take in enough hydrogen to power the vehicle."

Number 0519

REPRESENTATIVE KOHRING asked whether there had been review of the successes in the other states and whether the commission in Hawaii has yielded benefits, for example.

MR. HARDENBROOK replied that California is setting up the grid for actually supplying the vehicles. Hawaii is still in the

"theoretical stage of everything" and currently is using geothermal to power its power grid, to a certain extent, but hasn't set up the large-scale electrolysis yet; it has established the grant-writing system and the institute, and scientists are working on it right now.

REPRESENTATIVE KOHRING remarked that this is a good piece of legislation, but expressed some reservations about the public-funding aspect. He said he appreciates that the sponsor made reference to seeking private sources, and noted that page 3 talks about seeking private industry investment and tax incentives, for example. Mentioning the Wright brothers, flight technology, and private money which funded that success at the beginning of the 20th century, he noted that someone else had been funded by some government money then [and wasn't as successful].

Number 0674

CHAIR HEINZE brought attention to handouts in the committee packet, noting that Chugach Electric Association operates [one of the world's largest fuel cell projects] in Anchorage. She called upon Mr. Griffith.

Number 0695

JOE GRIFFITH, Chief Executive Office (CEO), Chugach Electric Association, said he applauds the committee for taking this up and that it's the kind of forward-looking view needed in the state. He remarked, "Heaven knows, we're experts in the energy business; we know how to do it and how to make it work. And I certainly look forward to participation in the project that Representative Crawford has brought forward here." He said $71,000 [the one-time amount in DCED's fiscal note] isn't a lot.

MR. GRIFFITH said he understands Representative Kohring's view that it is better to have private industry undertaking these things, but reminded the committee that "most of us are public entities in the energy business on this side of it, particularly the electrolysis side, and we would need ... special tools and help from the state in order to put something like this together." He continued:

> There will be big front-end costs, and ... it behooves us to get out and find those grants that are out there and perhaps craft partnerships that would make this a viable industry in our state. It is the fuel of the

future; there's no doubt about it. And we in Alaska ought to get aboard the process - the sooner, the better.

We can deal with the front-end costs and the fact that there's no transportation system and we would have to create one ... to be able to market the product. But we have some of the finest wind resources here in several areas of the state to make that hydrogen ... out of water, in essence. Maybe we could sell both the resulting oxygen and the hydrogen.

But it's clearly going to be the fuel of the future. We have fuel cells that today run on it, very high efficiencies. As someone said, ... there are already convention internal-combustion engines that can burn hydrogen. There are some technical difficulties in that, as well, but we know how to handle them as well.

MR. GRIFFITH went on to say this is a good bill, the kind of thing the state should do to ensure the tools are available for the private sector, and he believes the periodic report to [the legislature] makes a lot of sense. He concluded, "Let's get on with it."

Number 0917

CHAIR HEINZE returned attention to the handouts on fuel cells that [Chugach Electric Association] operates at the U.S. Postal Service facility. She asked whether it's called "steam reforming."

MR. GRIFFITH affirmed that, saying, "That's how you start the process." In further response, he explained that the CH4 molecule is converted to its basic components: carbon monoxide, and some water because of the amount of steam put in it, and hydrogen. Then the hydrogen is put through another process that strips off an electron and makes electrical energy; a certain amount of heat is also created in the process. He said the U.S. Postal Service facility uses both the heat and the electricity.

Number 0975

CHAIR HEINZE asked whether, through this process, the hydrogen atoms are taken from the fuel (indisc.) and the oxygen atoms are taken from the air, and this produces electricity and water.

MR. GRIFFITH answered that the output is electricity; a little bit of steam; and some carbon monoxide or carbon dioxide in small amounts, which he indicated comes from the carbon atom in the CH4 molecule, which is the natural gas that has to be part of the reaction. In further response, he said it's very clean; any fuel cell when it operates is virtually silent, and a wisp of steam comes out of the vents that is the total emission. He added, "Anytime you're using hydrogen as a fuel, it's very clean; the byproduct is water."

Number 1047

REPRESENTATIVE KOHRING moved to report HB 512 out of committee with individual recommendations and the accompanying fiscal notes.

CHAIR HEINZE announced that HB 512 was reported from the House Special Committee on Economic Development, International Trade and Tourism.

The committee took an at-ease from 10:40 a.m. to 10:44 a.m.

HCR 32-AK INFO INFRASTRUCTURE POLICY TASK FORCE

Number 1079

CHAIR HEINZE announced that the final order of business would be HOUSE CONCURRENT RESOLUTION NO. 32, Relating to information infrastructure and establishing the Alaska Information Infrastructure Policy Task Force.

Number 1090

REPRESENTATIVE KOHRING moved to adopt the proposed committee substitute (CS), Version 23-LS1717\I, Kurtz, 3/2/04, as a work draft. There being no objection, Version I was before the committee.

Number 1122

SUE STANCLIFF, House Majority Office, Alaska State Legislature, presented HCR 32 on behalf of Representative Kott, sponsor. Noting that Susan Davis could address technical questions, she explained that HCR 32 establishes the Alaska Information Infrastructure Policy Task Force, which will be charged with consideration of Alaska's role and interest in long-term information-infrastructure development.

MS. STANCLIFF said the development of information infrastructure will provide Alaskan communities with access to broadband connectivity and provide for improved telecommunications, health care, education, homeland security, and economic development opportunities. In addition, access to fiber-optic connectivity will help bridge the divide that separates rural Alaska from the benefits of technological advances realized in urban Alaska. She added that public-private partnerships have been used successfully around the globe to facilitate information-infrastructure development.

MS. STANCLIFF delineated the makeup of the task force as set forth in the resolution, and noted that the task force will begin work the first day of June [2004] and terminate no later than the close of the first session of the 24th legislature. The task force will be charged with developing a comprehensive package with recommendations, including legislation if necessary, to meet Alaska's needs.

Number 1226

SUSAN DAVIS, Staff to the Legislative Council Information Technology Subcommittee, Alaska State Legislature, introduced a two-minute audiovisual program on broadband access and the effect it could have in Alaska. A transcript of the audio portion follows:

> Rural Alaska has the infrastructure for instantaneous and reliable access to homeland security and emergency response, telemedicine, education, communication, sustainable economic development. Investment in information-technology infrastructure has enabled countries to increase foreign direct investment, sustain economic growth and employment, achieve balanced regional development, increase gross domestic product.
>
> Ireland's information-technology infrastructure is a shining example of what Alaska can achieve and surpass. Through public-private partnerships, the Irish government and its partners planned and developed a fiber-optic infrastructure. Ireland subsequently became a major player in the global economy.

> Today Ireland, the "Celtic tiger," is the largest exporter of software products in Europe, home to 300 leading electronics companies, and a base for 9 of the top 10 pharmaceutical companies in the world. In 2000, Ireland exported $13.3 billion worth of knowledge-based products to the global marketplace. Aggressive leveraging of private funds with public credit and resources enabled Ireland to develop the infrastructure needed to move its dated economy into the center lane of the global economy.
>
> This is not out of reach for Alaska. Fiber-optic cables running deep beneath the sea provide state-of-the-art telecommunications from Alaska's largest urban hubs to the Lower 48 and the rest of the world. The fiber-optic [cable] already stretches between Prudhoe Bay, Fairbanks, Anchorage, and Juneau.
>
> Alaska's communities are dispersed across its immense landscape, and the gaps in our infrastructure are the result of federal land laws, vast distances, and the relative newness of our state. No paved highway may ever connect some of our towns and villages to the outside world. But a telecommunications superhighway can link them all. Innovative engineering concepts and robust technologies in use today can be put to use in Alaska, hardwiring far-flung communities to logistics hubs. With a telecommunications superhighway, the Alaskan economy can evolve into a 21st century economic powerhouse.
>
> ... Alaska's telecommunications superhighway will offer the opportunity for every city, town, and village in Alaska to have instantaneous, reliable access to homeland security and emergency response, telemedicine, education, communication, sustainable economic development. However, today these communities remain isolated from each other and the rest of the world. Imagine Alaska connected.

MS. STANCLIFF pointed out that committee packets contain related information.

Number 1429

REPRESENTATIVE CISSNA noted that she'd just spent the last two hours with Representative Kott [in the House Community and

Regional Affairs Standing Committee meeting] looking at the 911 emergency system. Saying telemedicine is high on her list, she asked whether the two systems are complementary and use some of the same technologies.

REPRESENTATIVE KOTT answered that they are somewhat complementary; the 911 emergency system and this particular resolution would dovetail nicely. He said this [task force] will look at expansion of the current emergency system in Alaska, as well as other arenas, in discussing broadband and fiber optics; he said this has been a unique priority of his. Highlighting Ireland's fiber-optics project that began seven or eight years ago as a classic example of what can be done in an economy with inventive broadband technology or fiber optics, he said Ireland's economy has expanded enormously.

REPRESENTATIVE KOTT suggested that vital to Alaska and local communities is information technology in general, especially fiber optics; he mentioned telemedicine, tele-education, and developing economies where none exist currently. Indicating some projects have already been completed, he cited one in Hoonah that may occur. He conveyed his intention that this task force will identify all the "tentacles that we can reach out" to various communities, after first identifying what exists and what is lacking, in order to devise a plan. Offering his belief that two things drive a state - efficient energy and efficient information - he said that's what this task force would be charged with accomplishing, to develop a long-term plan.

Number 1611

REPRESENTATIVE CISSNA again referred to discussion [that day in the House Community and Regional Affairs Standing Committee] and mentioned different levels of government and the ability to decide within communities how to do what they want to do. She asked what role this task force would play in interfacing with homeland security and 911 systems, for example, and what autonomy it would allow for "different kinds of layers."

REPRESENTATIVE KOTT replied that the task force would evaluate the current 911 system; this fairly much relates to local municipalities and their enhanced systems as heard [that day in the House Community and Regional Affairs Standing Committee]. Beyond that, it would reach out into rural sectors; that's why the task force includes a member from the Department of Military & Veterans' Affairs, which is charged with emergency response including the 911 system and homeland security.

REPRESENTATIVE KOTT went on to say he doesn't know all the details about the current reach of the 911 system and where things are now with the state system, but it certainly will be addressed. He mentioned the partnership with the private sector and figuring out how to reach into other areas of the state that are currently covered under the 911 system.

Number 1718

REPRESENTATIVE CISSNA asked whether local governments will be included.

REPRESENTATIVE KOTT replied that they absolutely could be and said:

> We've identified three or four positions that we want to see included, and we've left the remaining membership, the at-large folks, to be determined. And it would be my objective to make sure there's a broad-based group of technical people that are involved, from the private sector and not government, that would represent not only the urban area, but rural areas as well, because that's where we're trying to reach out into, is the rural segments of the state. And that's what ... I believe the current objectives are in the information technology within the private sector, for instance, GCI, with their fiber optics.

Number 1785

REPRESENTATIVE CISSNA asked whether Representative Kott sees it as appropriate, then, to have local urban and rural governmental representation somewhere [in the resolution] "so that we don't leave any of those parts out," wind up with unfunded mandates, and leave behind some opportunities that local people might see but others might miss.

REPRESENTATIVE KOTT replied that it's not the intent to pass along unfunded mandates. This is a partnership between the public and the private sector to complete "whatever project they determine is feasible that we should go on with." With the [task force] having 13 members, there is a limit on the number of people who can be selected from various municipalities or rural communities. He expressed hope that it will be a "broad-based group who are technical in nature, that bring something to the table as far as how to get from here to there," and said the

intent is that they'll provide the task force with the ability to have the vision to go forward, using that vision in an effective way to drive the task force to a conclusion. He continued:

> This is not to say that just because you're not identified as a member of this task force that you cannot participate. Obviously, the more, the better. I'm certain that if there are meetings in Anchorage or Fairbanks, there'll be some representation from the various municipalities. But, clearly, the intent is to provide the task force with expertise.

Number 1883

REPRESENTATIVE KOTT [moved to adopt] Amendment 1, as follows:

> Page 3, line 8, after "not later than"
> Insert "the first day of"
> Delete "before the day"
>
> Page 3, line 9
> Delete "is scheduled to convene"

REPRESENTATIVE KOTT explained that the two amendments he would offer clarify what he is trying to accomplish. The intent with Amendment 1 is that the task force will provide its report to the 24th legislature prior to its starting date. He noted that the language would read "not later than the first day of the First Regular Session of the Twenty-Fourth [Alaska State] Legislature".

Number 1938

CHAIR HEINZE asked whether there was any objection to adopting Amendment 1. There being no objection, it was so ordered.

Number 1944

REPRESENTATIVE KOTT [moved to adopt] Amendment 2, as follows:

> Page 3, line 5
> Insert "the task force members shall serve without compensation but are entitled to transportation expenses and per diem as authorized for members of boards and commissions under AS 39.20.180"

REPRESENTATIVE KOTT explained the intent, if there are meetings away from where [task force members] live, that [the state] should at least bear the cost of providing the transportation, as done for other public employees.

Number 1985

CHAIR HEINZE asked whether there was any objection to adopting Amendment 2. There being no objection, it was so ordered.

Number 1996

REPRESENTATIVE KOHRING spoke in support of the resolution, but suggested this should be looked at as a first step in the right direction in terms of encouraging Alaska's economy and getting telecommunications going in the state, as seen in Ireland. Noting his interest was sparked by the audiovisual program, he expressed the desire to further explore what Ireland's government has done to encourage that type of development.

REPRESENTATIVE KOHRING surmised that people don't just start locating their companies in a state or country without other elements such as tax credits, exemptions, or land being provided for companies to build facilities on. He cited Washington as a state where the government's efforts have paid off in this regard, and suggested the need to do something similar in Alaska. He emphasized that although HCR 32 is a good start, it should be taken further.

NUMBER 2065

CHAIR HEINZE remarked that Ireland's economy has expanded 7-10 percent each year due to this, and said it's a good point.

REPRESENTATIVE KOTT agreed Representative Kohring had made a good point. He said the expansion of [Ireland's] fiber-optics network certainly has led to economic growth, and acknowledged there might be other reasons such as those mentioned by Representative Kohring. He encouraged Chair Heinze to consider putting together a trip to Ireland.

CHAIR HEINZE concurred with looking at Ireland's model.

Number 2121

STEVE WALKER, Broadband Services Department, GCI, discussed what GCI has done with regard to broadband delivery to rural Alaskan

communities. He said GCI is in the midst of a three-year project to expand broadband Internet services statewide. The end product will be the delivery of high-speed broadband connectivity to more than 150 of about 200 Bush communities; the remaining communities are served only by [AT&T] Alascom. He explained that [GCI's] residential and small-business customers can choose from services with speeds "up to 64K or up to 256K" at prices comparable to Anchorage rates, with service available in villages as small as Birch Creek, which has 28 people.

MR. WALKER reported that during 2002-2003, GCI committed $2.1 million to expanding services to 70 rural Alaskan communities; maps in packets show where service is already provided or is planned for 2004. In 2004, service is planned for another 68 villages, which will complete GCI's commitment to bring broadband service to all the Alaskan communities it serves. In partnership with Alaska village initiatives, [GCI] will provide not only Internet access, but also the knowledge-based tools necessary to take full advantage of associated economic and job-related opportunities. He conveyed the expectation that this year's portion will be completed in mid-September.

MR. WALKER provided examples where community demand has been identified and met "through industry and public cooperation." He said GCI provides more than 105 telehealth sites with broadband connections and cited examples; mentioned having fiber, microwave, and satellite connections for all locations; and said health providers are connected with regional hospital physicians and some in the Lower 48. He also gave details about the data-delivery capabilities for telehealth and high-quality video conferencing. In response to a request from Representative Cissna, he agreed [to provide information about the different sites and history that he'd been discussing].

Number 2306

CHAIR HEINZE inquired about providing telehealth from a clinic in Bethel, for example, [through connection to] the Lower 48.

MR. WALKER answered that it depends on the connectivity requested. For example, he said [GCI] provides connectivity between the Kotzebue region and the Lower 48.

CHAIR HEINZE, noting that she'd recently seen x-ray telemedicine in Talkeetna, asked whether sending an x-ray to Providence Hospital in Anchorage, for example, is what Mr. Walker was referring to.

MR. WALKER answered in the affirmative. He added that organizations have developed what are called telehealth cards. A computerized otoscope is used to look at infections down a person's nose or throat; those images and a patient's history can be stored, and that data forwarded to a regional health care center, for example.

TAPE 04-13, SIDE B
Number 2355

TINA PIDGEON, Vice President of Federal and Regulatory Affairs, GCI, expressed appreciation for the interest in an on-site study of telecommunications services in Ireland. Referring to Mr. Walker's testimony, she said there is a lot to be excited about with regard to ongoing and future infrastructure investments in Alaska that are delivering high-quality, advanced broadband connectivity and services therefrom.

MS. PIDGEON, noting that GCI had reviewed an earlier version of HCR 32, offered three principal recommendations as follows:

> First, we urge you to take the opportunity to assess Alaska's current telecom infrastructure before constituting the task force. We anticipate - particularly based on some of the services that Mr. Walker described - that you'll be pleasantly surprised at what you will find regarding the extent, the quality, and even the sophistication of the telecom infrastructure that's available today in Alaska. In the event that the task force is constituted, we recommend that one of the first tasks that it undertake is to inventory existing and planned broadband infrastructure.
>
> As a second matter, we suggest that if the task force is created, ... industry members should be included among its membership. We think ... industry representatives can provide invaluable expertise that's based on actual experience in providing ... these and other services in Alaska.
>
> And, finally, any task force should give great weight to the telecom advances and infrastructure investments that have already been made available through competitive entry, and to consider the practical challenges of designing technology that meets the

needs of rural communities at urban rates, which GCI has been able to do.

Number 2268

MS. PIDGEON provided background and statistics, saying GCI has been at the forefront of deploying new and innovative technologies to improve and advance telecommunications service since 1982; significant investments, largely through private capital, have dramatically improved Alaska's telecommunications infrastructure since then. For example, GCI has invested more than $530 million in Alaska's telecom infrastructure since 1996, including approximately $64 in telemedicine and $138 million in two undersea fiber-optic cable projects; the second cable project, currently underway, will substantially fortify Alaska's fiber-optic network and the security of Alaskan telecommunications, she predicted.

MS. PIDGEON reported that as a result of these and other investments, coverage has increased significantly in Alaska over the last several years for both basic telephone and broadband services. More than 96 percent of Alaskan homes have telephone service, whereas the national average is 95.2 percent. As for broadband connectivity, Alaska is first in individual Internet use, estimated at 71.6 percent, compared with a national average of about 54 percent; Alaska is also first in home subscription to broadband service, at about 26 percent, compared with a national average of 13 percent. She surmised this demonstrates that Alaskans demand these types of services and use them when available. Returning to HCR 32, she urged the committee to look at the current status of broadband connectivity and fiber deployment in Alaska.

CHAIR HEINZE asked Ms. Pidgeon to provide a written copy of her report.

MS. PIDGEON agreed to do that.

Number 2161

IK ICARD, Consultant, began by saying he is working with Kodiak Kenai Fiber Company to extend fiber-optic cable out of Anchorage and down along the Kenai Peninsula to Kodiak Island. Voicing support for HCR 32, he said he believes this is an important issue that only the state can undertake, since the type of telecommunications infrastructure development that will offer broadband services to communities throughout the state often

isn't economically feasible for the private sector to undertake alone; however, the projects can be encouraged and made feasible through public-private partnerships.

MR. ICARD said a task force dedicated to an analysis of existing infrastructure and recommendations for further development is a timely and necessary first step for the state. He discussed identifying preferred levels of services and suggested that telemedicine-related broadband services for evaluation of patients and treatments might require a higher level of service than would the sharing of records and consultation among doctors, for example.

MR. ICARD highlighted the process gone through by countries and states that lead the world in information technology; the need for backbone infrastructure to support it; and the recognition that in many cases the investment levels, rates of return, and payback periods make projects difficult or impossible for the private sector to undertake alone. He noted that Ireland, Iceland, India, Israel, Australia, Southeast Asia, and Malaysia, for example, all have taken steps to encourage private investment in local infrastructure. He said Ireland has the fastest-growing economy in the OECD [Organization for Economic Cooperation and Development]; has seen growth over 7 percent every year since 1993, with a drop in the unemployment rate as well; and has productivity levels among the highest in Europe.

Number 2018

MR. ICARD voiced his belief that Alaska has a predisposition for an even greater infrastructure build-out, including fiber optics, satellite, microwave, and wireless infrastructure. He noted that Alaska has abundant, robust infrastructure already in place to major urban hubs; that Prudhoe Bay, Fairbanks, Anchorage, Juneau, and the Lower 48 are all connected by fiber optics; and that GCI is installing yet another fiber-optic trunk line. This [resolution] is an opportunity for the state to build on that and leverage private equity to encourage infrastructure build-out and economic diversification throughout Alaska's communities.

MR. ICARD said Alaska, at 62 percent, has the highest per-capita use of computers in the home. He suggested the slumping fishing and oil industries and Alaska's "terrific" labor base make it a prime candidate for further economic diversification facilitated by broadband development. Mentioning a confluence of state and federal interests, he pointed out that homeland security and

defense considerations for the U.S. converge with state interests, for example. He urged support for HCR 32 as an important step for Alaska in evaluating and encouraging a robust telecommunications infrastructure in the state.

Number 1952

REPRESENTATIVE KOHRING asked what those other countries have done beyond developing telecommunications infrastructure. He reiterated his belief that more must be done; he mentioned the possibility of exemptions, tax credits, making land available, or providing other types of infrastructure such as port facilities. He cited Canada's Yukon Territory - which has beautiful highways, a railroad track up to Fort Nelson, and electrical distribution lines - as a place without a robust economy despite its infrastructure.

MR. ICARD noted that Representative Kohring had listed a number of mechanisms available to encourage "public-private partnerships," and pointed out that this term has different meanings; these include tax benefits and tax abatements such as the State of Washington has extended to Boeing, as well as bonding authority and the ability for private investors to have their investment leveraged and the debt terms extended. He said such mechanisms can facilitate projects that otherwise aren't economically feasible for private investors.

MR. ICARD characterized infrastructure as a tool to provide economic diversification and development. He said without that infrastructure to begin with, there is no means to encourage some of the "most recent, highest advances in telemedicine" such as participation in real-time evaluations and even treatment of patients beyond simply trading "high data density" information such as x-rays or MRI [magnetic resonance imaging] reports or transmission of records and prescriptions. He mentioned marketing and interactive efforts between retail and wholesale providers, saying these are facilitated by broadband services regardless of where those markets are. He asked whether he'd hit some of the salient points of Representative Kohring's question.

REPRESENTATIVE KOHRING said not really, but acknowledged that it was an in-depth question. He thanked Mr. Icard and said he'd research it himself.

Number 1791

REPRESENTATIVE CRAWFORD followed up, emphasizing the importance of education. He suggested one common thread for [Ireland, Iceland, India, and Israel] is the high degree to which they've invested in higher education and educational opportunities for their students; these are some of the most highly educated workforces in the world. Agreeing that infrastructure is a necessary part, he highlighted education as the key to the "economic miracle" in those other countries.

Number 1736

FRED PEARCE, Ph.D., Professor of Telecommunications, University of Alaska Anchorage, voiced wholehearted support for HCR 32. Agreeing that broadband telecommunication services clearly are needed, he emphasized the corollary development of knowledge-based approaches and industries as a key to the success of [Ireland, Iceland, India, and Israel]. Dr. Pearce spoke for engendering both an infrastructure and an approach that allows development of local jobs. He also mentioned work "here and through the Alaska Rural Development Council" to ensure that for [health-related] consultations done in rural Alaska, the money for primary care should "pool up" around those consultations, rather than going to Anchorage or outside the state.

Number 1660

REPRESENTATIVE CISSNA asked how this task force can help in some telemedicine-related challenges such as the ability to finance the system and get reimbursement.

DR. PEARCE replied that issues of reimbursement are "rather edgy" and are key. For most of the research he did from the beginning of 1996 through 2001, he reported, the cost-reimbursement model cannot justify the cost; the cost per transaction far exceeds the current cost per transaction based on the current transportation-based model. Nonetheless, these broadband services will make available services that aren't currently available. For instance, telemedicine activities in Alaska to date have revolved around data acquisition, data movement, and high-resolution imaging.

DR. PEARCE, addressing whether these broadband-based services and "teleconsultations" will take root in rural Alaska, said it's as much a function of the training and educational support of "folks on the rural side" as in Anchorage. For example, handheld health care devices do no good if people in rural sites don't have active training and support. "I think there are a

lot of other issues here ... than the broadband issues, though I support them wholeheartedly," he concluded.

Number 1539

WANETTA AYERS, Executive Director, Southwest Alaska Municipal Conference (SWAMC), began by explaining that SWAMC is the economic development district and the Alaska Regional Development Organization (ARDOR) for Southwest Alaska. Urging support for HCR 32, she specified that she was speaking on behalf of the 54 communities and 131 members of SWAMC. Calling creation of this proposed task force a much-needed step, she noted that similar efforts have been undertaken by other states to determine how state government can use its resources to create an environment in which the private sector has the incentive to provide information technology - usually, broadband fiber-based technology - to small, rural markets.

MS. AYERS reported that Colorado, Minnesota, North Carolina, Oregon, and Vermont have developed statewide information technology strategies to help bridge the "digital divide" between urban and rural areas, enhancing the economic competitiveness of rural areas and transforming the overall economies of these forward-thinking states.

Number 1490

MS. AYERS encouraged committee members to look at three resources: the web site "thinkvermont.com/technology"; the Progressive Policy Institute's new economy index for 2002, where Alaska ranked 1st in online population and 6th in technology and tools, but 49th in broadband access and online manufacturers, with an aggregate digital-economy ranking of 36th; and a benchmark study of state telecommunication networks developed by the State of Colorado that provides an excellent grid showing how government services and education are addressed through telecommunications in all 50 states. Ms. Ayers noted that Colorado's study showed, for instance, that 10 years ago Ohio integrated a fiber-optic backbone with an 800-megahertz radio system and replaced its existing microwave system, thereby reaping many millions of dollars' worth of savings.

MS. AYERS returned attention to Alaska and the region she represents, citing an example and emphasizing that fiber-optics technology will complement existing technology and create a fair playing field for existing stakeholders. She pointed out that although a number of localized fiber-related projects are being

developed, they aren't interconnected; without a stable, secure fiber-optic link, they only provide a marginal benefit on a localized level. She again urged support for HCR 32.

Number 1332

CHAIR HEINZE requested that Ms. Ayers provide a copy of the report.

MS. AYERS agreed to that.

Number 1316

SUE COGSWELL, Director, Prince William Sound Economic Development District (PWSEDD), indicated PWSEDD represents Tatitlek, Chenega Bay, Whittier, Valdez, and Cordova. She spoke in support of HCR 32, highlighting the need for certainty that all regions in Prince William Sound are covered by telecommunications and fiber-optic service; although some communities have fiber optics now, they aren't linked to the statewide system. She cited an example of a possible link within Prince William Sound that would assist with various emergency responses as well as commercial tanker traffic. Saying she thinks this is a great opportunity for state, public, and private entities to work together for a "terrific, innovative solution to just about every problem we have," she closed by saying, "All of our communities support this effort."

Number 1193

JASON OHLER informed members that he has a professional relationship with the digital-media industry in Ireland and will go there next April, at which time he'll make a serious effort to get details. He noted that when he'd asked about the "miracle" there, people from within the media industry had cited leadership and cooperation, and had said the government had come forward and tried to make it easier for the industry.

MR. OHLER shared his dream of waking up one day and reading in the newspaper that the governor has said it's time for Alaska to develop its economy. Mr. Ohler explained that although that wouldn't cost anything, he could take that headline and go to the National Science Foundation or the Bill [& Melinda] Gates Foundation, for example, where doors would open because he'd be able to show them that Alaska has the political climate they're looking for.

MR. OHLER recalled talking to someone recently about a [federal Technology Opportunities Program (TOP)] grant for innovative technology; the person had almost immediately asked what the attitude in Alaska is and whether it's possible to get the governor behind this. Mr. Ohler remarked, "Those of us who don't come seeking money but come seeking support, ... those are the things that we look for. And I can't tell you the value to those of us who are trying to do ... those kinds of things."

MR. OHLER explained that foremost in his mind is community sustainability. Noting that today's discussion primarily had a commercial bent, which is fine, he reminded listeners that any build-out of the telecommunication infrastructure system also has benefits for health, education, and government services. He said there are tremendously efficient ways for [the state] to communicate with the public, for the public to get fishing licenses and so forth. He suggested tremendous progress can be made in that vein, and highlighted the need to include Alaska's citizens in the governmental process once that connectivity is there and is affordable.

Number 1024

MR. OHLER noted that one hat he wears is as a researcher at the university. Saying the research project still waiting to be done is the "longitudinal effects of bringing bandwidth to a small community," he explained:

> The progress goes like this: You go in, you take baseline data; the baseline data is, how do people get their health needs met, their educational needs met; how do they interact with government; how do they do business. Then you bring in bandwidth and you bring in - and this is absolutely key - ... training. I can't tell you how many failed projects are out there because people dropped bandwidth on them and ... waited for them to get the education they needed to figure out what to do with that stuff.

MR. OHLER went on to say that the third phase of such a project is looking at the impacts such as whether health care, education, and commerce and economic development have improved. He added that there is no better way of including people in the opportunities of living in the year 2004 - to "teach someone how to fish, rather than continue to give them fish" - than bringing them into the benefits of living in the Internet age.

Number 0928

MR. OHLER pointed out that obviously he's all for the resolution and added:

> This is exactly the leadership, to me, that the government can show. It doesn't cost a lot. It sort of sits up here. It tries to bring everyone together. This is wonderful. This is exactly what government ought to do.
>
> But the bottom line is, none of us is really going to be so impressed with a piece of wire that's in the ground. What we're going to be impressed with is what people can do with that. We're really, really impressed with expansions in economies and jobs and health care and so on. And, quite frankly, most people don't know how their refrigerator works, but ... they don't want to live without one. They want the benefits of the technology.

MR. OHLER noted that the infrastructure and bandwidth must be in place first, and closed by highlighting the need to get Alaskans to use it for their own benefit.

Number 0850

CHAIR HEINZE referred to a document in committee packets relating to the Centers of Excellence in Rural America (CERA). She asked Mr. Ohler whether he has looked into CERA.

MR. OHLER answered no, although he knew something about it. He explained that his focus is on the need to "move beyond centers." For example, a person who must walk a mile to use a car probably won't do so. Commenting that "it's got to be as ubiquitous as your cell phone," he said there are small, remote communities that have gone wireless where a person can walk around with a laptop computer and use it in a field, for example.

CHAIR HEINZE asked whether Mr. Ohler doesn't see CERA as a model, then.

MR. OHLER offered to look at the document and said:

> I know the model of the center, which is great. They are wonderful. It may be where people go to get their

> training so they know what to do with it. It's just as a standalone, people need it infused into their lives the way the phone is. So I'm going to say it's a great model for certain aspects of it. But the bottom line and the goal that you're pursuing is, you want people to be fully brought in to ... mobile use of digital communication and Internet technology.

Number 0748

CHAIR HEINZE paraphrased from the document, saying the concept of CERA "builds on the roots of small towns and ... their independence but mutual support for the common good." It's an effort to test [the hypothesis] that creating a network of small, rural towns deploying affordable, high-speed telecommunications services will result in "increased job creation and/or income in those towns while also improving education, health care, and governmental services." She remarked that she found that interesting. She also noted that at the bottom of the page it says CERA is looking for partners and corporate sponsors that are willing to help design, implement, and evaluate the emerging CERA.

REPRESENTATIVE CISSNA pointed out that it's dated October 2000. She suggested the need to look at what has happened since then.

CHAIR HEINZE asked Mr. Ohler whether he'd be following up.

MR. OHLER replied in the affirmative.

CHAIR HEINZE remarked that the governor might not provide the headlines, but asked about the Speaker of the House [Representative Kott, sponsor of HCR 32].

MR. OHLER said it happened last year, and thanked Representative Kott for that. He emphasized the desire to get it on the front page of the Anchorage newspaper and reiterated, "If I have that, I can then go and get my own money to do these things."

Number 0620

REPRESENTATIVE KOHRING thanked Mr. Ohler for his enthusiasm and said he'd like to have him play an active role in facilitating this. He requested more information on Mr. Ohler's credentials.

MR. OHLER replied that he is "what they call a president's professor at the University of Alaska in educational technology."

REPRESENTATIVE KOHRING remarked that he looked forward to receiving information about what Ireland has done to create its boom that Alaska could use. He added that when this [task force] is created, he'd like to see Mr. Ohler considered as one of the members.

MR. OHLER provided further information on Ireland, reporting that in Dublin, Guinness provided a city block of old brewery buildings that was turned into the digital-media hub. He said he'd spent a day touring it, and it's quite remarkable. He expressed hope that following his visit, they are making the connection between education and what they're doing there.

Number 0482

CHAIR HEINZE asked whether anyone else wished to testify. She then closed public testimony.

Number 0469

REPRESENTATIVE KOHRING moved to report CSHCR 32, Version 23-LS1717\I, Kurtz, 3/2/04 [as amended], out of committee with individual recommendations and the accompanying fiscal notes. There being no objection, CSHCR 32(EDT) was reported from the House Special Committee on Economic Development, International Trade and Tourism.

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Economic Development, International Trade and Tourism meeting was adjourned at 11:55 a.m.