LINDA LINGLE
GOVERNOR

May 3, 2010

via email to: imartinez@ntia.doc.gov

The Honorable Lawrence E. Strickling
Assistant Secretary for Communications
    and Information
United States Department of Commerce
Washington, D.C. 20230

Dear Mr. Strickling:

Thank you for the opportunity to provide the National Telecommunications and Information Administration (NTIA) with our recommendations regarding the Broadband Technology Opportunities Program (BTOP) applications that proposes to serve areas within the State of Hawai`i.

Our recommendations are based on the following factors:

- The extent to which the applications focused on the specific economic and geographic needs within the State of Hawai`i;

- The extent to which the applications provided the most broadband access for the most people who could least afford access (income), or who had the least access (rural) to broadband;

- The degree that the applications comported with the Hawai`i Broadband Task Force Final Report;

- The extent to which the applications would spur job creation and stimulate long-term economic growth and opportunity; and

- The extent to which the applications were technically feasible and would provide broadband services to remote or underserved communities in the State of Hawai`i.

Based upon these criteria, we would enthusiastically support the following applications in the "highly recommended" category in the priority ranking as indicated, and the following applications in the "recommended" category:

A. HIGHLY RECOMMENDED APPLICATIONS

Hawaii Priority Ranking:	#1
Easygrants ID:	5786
Applicant organization:	UNIVERSITY OF HAWAII SYSTEMS; HONOLULU, HI
Application type:	Middle Mile Comprehensive Community Infrastructure
Application name:	Ke Ala -Ike: Connecting Hawaii's Community Colleges, Universities, Schools and Libraries

BASIS FOR RECOMMENDATION: This project will provide gigabit or higher direct fiber optic connectivity at 388 community anchor locations throughout the State of Hawaii including every community college and remote education center, every public school, every public library and every public university in the State.

This project will serve every community on every island, and will provide 10Gbps connections to all 7 accredited community colleges in Hawaii, as well as to their remote education centers on 6 islands along with Hawai`i's 3 public universities and key related anchor locations. All of Hawai`i's community colleges and public universities are Hawaiian-serving Institutions as defined in federal statute. The project will also provide 1Gbps connectivity to all 302 public schools and public education sites in Hawai`i, including the public charter schools, as well as to all 51 of Hawai`i's public libraries. The proposed infrastructure will also enhance the availability of fiber middle mile capacity for some of our most underconnected rural communities: the town of Hana on the island of Maui, and Lanai City on the island of Lanai, both of which are currently connected by microwave only.

All of the technologies and public-private partnerships are in place and well-proven, which will ensure project success. The total cost of the project is $42,466,000, including the required 20% matching funds. The constituency directly served is over 300,000 students, faculty, teachers and staff, which is roughly 25% of the State's population. Using the federal government's methodology, it is estimated that 430 job-years would be created by this project including 275 indirect and 155 induced. In addition, the project partners are the key institutions in the State responsible for elevating educational achievement and creating new jobs and workers for a new economy.

Hawaii Priority Ranking:	*#2*
Easygrants ID:	5595
Applicant organization:	UNIVERSITY OF HAWAII SYSTEMS; HONOLULU, HI
Application type:	Middle Mile Public Computer Center
Application name:	Access for All: Hawaii Statewide Public Computer Centers

BASIS FOR RECOMMENDATION: The "Access for All: Hawaii Statewide Public Computer Centers" will provide 693 new public access broadband-connected computers in 66 public facilities, including community colleges, on 6 islands throughout the entire State of Hawai`i. By focusing on Hawai`i's community colleges, public libraries and remote education centers this project leverages substantial existing public resources and capabilities: physical, human and programmatic. In addition to providing resources for vulnerable populations throughout the State, the project will ensure availability of accessible hardware and software in each of the 66 locations. The companion Comprehensive Community Infrastructure proposal (*see* Easygrant ID: 5786, Hawai`i Priority Ranking #1) will upgrade the broadband capabilities in all these locations as well as at every public school in the State.

The "Access for All" proposal is unique within the nation with its pervasive statewide scope. This project will help every public library in the State, as well as every community college and their remote education centers, by providing new broadband-connected computers for public access by vulnerable populations, including the disabled.

The "Access for All" project partners have worked together to develop this proposal to create a statewide safety net for the most disadvantaged citizens on every island and throughout the State. This safety net will be used to help Hawai`i's citizens improve their social, personal and economic well-being. Consistent with the Hawai`i Broadband Task Force Report, the Community TeleStructure Initiative's national "Fiber to the Library" initiative positions public libraries as "Community Technology Hubs" with three key roles: Early Adopter, Face of E-gov and First Responder. The public libraries of Hawai`i have embraced all these roles as vital components of the public services that public computing facilities in well-connected libraries can offer.

The 2008 census estimates the population for the State of Hawai`i to be 1,299,198 and the total proposed cost of this project is estimated at $2,436,700. This

project will touch virtually every resident of Hawai`i, particularly those most in need, at a cost under $2 per person.

Hawaii Priority Ranking:	#3
Easygrants ID:	5886
Applicant organization:	GOLD IVORY LLC; HONOLULU, HI
Application type:	Middle Mile Comprehensive Community Infrastructure
Application name:	Hawaii Broadband Network (HBN)

BASIS FOR RECOMMENDATION: The Hawaii Broadband Network (HBN) is a statewide middle mile network delivering comprehensive community infrastructure, to facilitate open interconnection across the counties of Kauai, Maui, and Hawai`i. The proposed network is a highly-collaborative, high-value project that will provide enormous benefits to residents, promote economic growth in a substantially depressed economy, and provide upgraded connections to community anchor institutions across the State. The HBN project team is a public/private partnership including government agencies, non-profit and for-profit entities, as well as economically disadvantaged small businesses.

The islands of Maui, Molokai, Lanai, Kauai, and Hawai`i are the five middle mile service areas that are collectively referred to as the HBN proposed funded service area (PFSA). The HBN PFSA is home to 335,234 residents, 10,282 businesses, 1,279 community anchor institutions, and several third party service providers that have expressed an interest in the upgraded services the HBN will provide through its policy of open interconnection. 71% of the PFSA, which spans the counties of Maui (consisting of the islands of Maui, Molokai, and Lanai), Kauai, and Hawai`i, are designated "economically disadvantaged." With limited economic resources, an unemployment rate of over 6%, and a median income of only $21,767 per year, accessibility to a robust, affordable and open network is appealing to these rural county governments, residents, and businesses. According to 2000 Census Bureau data, 98.8% of the HBN PFSA is designated "rural," Furthermore, Gold Ivory used statistical models to classify the PFSA status as underserved; the rate of terrestrial broadband subscribership is 34% - less than the 40% subscribership threshold.

The HBN will provide direct connection to 148 community facilities, including 59 public safety entities and community colleges. The HBN will also directly connect with key anchor institution, Hawaii Community College (HCC), which will enable HCC to obtain affordable access to robust broadband connections not presently available or affordable.

The HBN will cost $293,682,070. However, by leveraging existing resources and partnerships, Gold Ivory is prepared to provide $132,202,990 in matching funds, which is 45% of the total cost, reducing the funding request to $161,479,080. This funding will infuse much-needed capital into the economies of the counties that have been impacted by the economic recession and the dramatic decline in tourism - the State's primary economic driver.

To estimate the likely impact of the fiscal stimulus spending in the HBN service area, Gold Ivory estimated job creation for the proposed infrastructure project using the Council of Economic Advisers' guide, using the simple rule that "$92,000 creates one job-year," and has determined that the HBN will result in an estimated 5,265 job-years, or 1,755 job-years for each of the three years of the HBN project. A vast majority of jobs created as a result of this government spending will be indirect jobs, or those in the private sector, building out this critical broadband network. Additionally, the 1,895 induced jobs that result from the HBN project will contribute to the sustainability of the project, and significantly improve Hawai`i's economy. As increases in income within the service area are realized, additional increases in spending will result.

This proposal presents a unique opportunity to address the critical broadband needs of key anchor institutions in the counties of Maui, Kauai, and Hawai`i.

B. <u>RECOMMENDED APPLICATIONS</u>

Easygrants ID:	6350
Applicant organization:	OFFICE OF HAWAIIAN AFFAIRS; HONOLULU, HI
Application type:	Middle Mile Public Computer Center
Application name:	Native Hawaiian Broadband Community Centers Project (OHA-PCC)

BASIS FOR RECOMMENDATION: This project will create 27 new Public Computer Centers (PCCs) and bring together a comprehensive group of community, education and industry project partners utilizing broadband connections to innovatively provide underserved Native Hawaiians with the requisite education, training and skills necessary to compete for recession-proof, affordable wage jobs.

The creation of strategically located PCCs, connected via broadband technologies to key (and culturally appropriate) project partners, will address the high unemployment, low educational attainment, and extremely limited access to workforce opportunities for Native Hawaiians. The provision of broadband enabled distance

learning equipment (PCs and videoconferencing equipment) will open new avenues of learning for Native Hawaiian residents throughout the State. OHA and partners will create a broadband enabled, interactive base systems infrastructure for the anticipated new Native Hawaiian Government Entity in 2010-11. The creation and/or expansion of PCCs will allow project sites and partners to offer web-based-learning programs and community workforce outreach.

Participating partners in this project are:

- Hawaii Technology Institute will provide expanded training and education outreach, leading to certification and degree attainment;

- Alu Like Inc., will provide a direct link for youth and adult learners to career counseling, family support services and advice;

- Certiport Inc., will provide a comprehensive list of their eTraining Skilled2Succeed packages and modules; and

- Kelly Services/Kelly Connect program will provide residents who complete certifications and job readiness training with the opportunity to fill a virtual job, thereby offering Native Hawaiians the ability to stay in their homelands while earning an affordable wage.

The areas served by this project will cover the five major islands of Hawai`i. The proposed PCCs in this project will be: Oahu - 15; Hawai`i - 5; Maui - 4; Kauai - 3 and Molokai - 1. The following demographic summary covers the major areas served:

(1) Oahu: Total Population: 876,150; Native Hawaiian (NH) Population 153,125 (17.48%); NH median household income: $48,870 (87.1% of average Oahu); NH unemployment rate 15.5% (2008); Estimated PCC Project Users: 12,250;

(2) Island of Hawai`i: Total Population: 148,675 NH Population: 43,020 (28.94%); NH median household income: $35,855 (84.2% of average); NH unemployment rate 18.0% (2008), Estimated Potential PCC Project Users: 3,442;

(3) Kauai: Total Population: 58,305; NH Population 13,385 (22.96%); NH median household income: $39,611 (82.2% of average) NH unemployment rate 10.9% (2008), Estimated Potential PCC Project Users: 1,070;

(4) Maui County (Maui and Molokai): Total Population: 128,094; NH Population: 29,952 (28.15%); NH median household income: $45,538 (82% of average); NH unemployment rate 20.7% (2008), Estimated Potential PCC Project Users: 1,545.

It is conservatively estimated that up to 35% of Hawaii's Native Hawaiian population will have proximity to the proposed PCCs and have access to training and retraining, enabling workers to qualify for and fill recession proof jobs, particularly in those industries experiencing a shortage of skilled workers. New training programs brought about through this OHA PCC grant will target Native Hawaiian working age youth and adult residents throughout the State, particularly low-income, unemployed, low-skilled workers. Training programs will be focused on positions in high-growth fields such as healthcare, IT, green-tech/energy and education.

A total of 17,952 participants and end users will be targeted for training/retraining. It is also projected that up to 750 individuals who receive certifications and job readiness training will be eligible for virtual employment annually. Overall cost of the proposed project: $ 2,865,088.

Easygrants ID:	5517
Applicant organization:	UNIVERSITY OF HAWAII SYSTEMS; HONOLULU, HI
Application type:	Middle Mile Sustainable Broadband Adoption
Application name:	Pacific Basin Islands Ecommerce Portal

BASIS FOR RECOMMENDATION: The University of Hawaii's Pacific Business Center Program (PBCP), whose mission is to provide economic assistance to the U.S. affiliated Pacific islands by leveraging the resources of the University of Hawaii system, aims to establish viable ecommerce platforms for the various island territories. The Pacific Basin Islands Ecommerce Platform project aims to establish a viable ecommerce system for the U.S. territories of American Samoa, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), the Federated States of Micronesia (FSM), the Republic of the Marshall Islands (RMI), and the Republic of Palau. In addition, Pacific Islander groups in the State of Hawaii will be included in the project. PBCP will provide the technical and managerial expertise to bring this project to fruition.

Ecommerce adoption in the region (excluding Hawai`i) has been very low, owing primarily due to a lack of expertise, tiny markets, and expensive internet access. Specialists in ecommerce are rare or non-existent in these small island regions, since demand for their services is minimal, as are opportunities for growth. Markets are very small internally, and the overall demand for products and services is also limited. Furthermore, the extreme isolation of the islands in the region and the vast distances between them means that internet access is very expensive, often prohibitively so.

Broadband internet is almost exclusively delivered by undersea fiber-optic cables, which are not feasible for most of the smaller island nations and territories, which are too far and too small to make financial sense for cables to be laid. Therefore most of the smaller islands rely on satellite-based internet connectivity, which is very expensive, and is usually supplied at sub-broadband speeds. This project aims to address these issues, in a limited and practical manner, owing to the unique geographical circumstances of the Pacific Basin islands.

In addition to providing the technical expertise to establish the ecommerce portal, PBCP will provide technical and business training to entrepreneurs and local businesses on how to sell their products and services online. To this end, PBCP will work with various community anchor institutions in the territories to set up training courses whereby an ecommerce expert from the University of Hawaii will conduct a series of training courses for entrepreneurs. A basic training course will reach 2,500 individuals, and will focus on broadband education. In addition, approximately another 300 will be given the opportunity to participate in a more intense ecommerce training course. Upon successfully completing the training course, the first 318 graduating entrepreneurs will be provided with a laptop and a year's high-speed broadband access, via the grant.

The timeline for the project is 1.5 years, with the first six months dedicated towards establishing the portal, conducting training, providing equipment and access, and establishing the initial procedures. The next year will be dedicated towards providing technical and managerial advice by PBCP in order to make the ecommerce platform sustainable, by leveraging resources from the University of Hawaii. The project aims to create jobs and generate demand for broadband internet access.

The proposed ecommerce portal will create valuable jobs in the knowledge sector of the economy, and plug American Samoa into the national and global economy via electronic commerce. All the islands (except for the State of Hawai`i) are almost entirely dependent on US federal aid to sustain themselves, and the ecommerce portal offers an opportunity for economic self reliance for entrepreneurs and businesses in the region. The proposed ecommerce portal and broadband connectivity would allow for the vast distances and limited resources to be bridged and open a new chapter in the economic history of the region.

Thank you once again for this opportunity to participate in the BTOP awards process. Should you have any questions, please contact Hawaii's point person for broadband issues, Ron Boyer, Acting Director, Department of Commerce and Consumer Affairs at 808-586-2850 or ron.boyer@dcca.hawaii.gov.

Sincerely,

LINDA LINGLE

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July 20, 2010

via email to: imartinez@ntia.doc.gov

The Honorable Lawrence E. Strickling
Assistant Secretary for Communications
   and Information
United States Department of Commerce
Washington, D.C. 20230

Dear Mr. Strickling:

Thank you for the opportunity to provide the National Telecommunications and Information Administration (NTIA) with our support for the application of the State of Hawai`i Department of Defense, regarding the Broadband Technology Opportunities Program (BTOP).

For your reference and convenience, the following is a summary of the relevant information regarding the application of the State of Hawai`i Department of Defense:

Applicant	DEFENSE, HAWAII DEPARTMENT OF HONOLULU, HI
Application ID	7853
Project title	State of Hawaii Broadband Air Interface for Public Safety
Program	BTOP
Proposed Project Area	State of Hawai`i
Project type	Comprehensive Community Infrastructure
Funding Round	Round 2 - Winter 2010
Grant request	$ 115,061,000
Status	Application Received
Description	A complete 700 MHz broadband network to provide early deployment of secure mobile access for public safety users throughout the State of Hawaii. This national standards based system will enhance operational efficiency, increase safety and improve reliably of, and access to, data for public safety users. The system will be operated by the State in partnership with all local governments in Hawaii.

As with our support for the selected applications for the first two funding rounds, our support of this application is based on the following factors:

- The extent to which this application is focused on the specific economic and geographic needs within the State of Hawai`i;

- The extent to which the proposed project would provide the most mobile broadband access for the most public safety providers;

- The degree that the scope of the proposed project comported with the Hawai`i Broadband Task Force Final Report;

- The extent to which the proposed project would spur job creation and stimulate long-term economic growth and opportunity; and

- The extent to which the proposed project is technically feasible and would provide broadband services to public safety providers in remote or underserved communities in the State of Hawai`i.

BASIS FOR SUPPORT: The state of Hawai'i is comprised of only four local governments, the counties of Kauai, Hawai'i, Maui, and the City and County of Honolulu. The proposed system will provide service to a majority of the populated areas of each of these four counties. Our infrastructure and backhaul connectivity will pass over 400,000 households and 30,000 businesses. Each of these businesses and households will benefit from having better data tools available to public safety personnel. Nineteen (19) police and fire stations and ten (10) other state or local government facilities will directly benefit from middle mile connectivity. Public safety institutions throughout the state will benefit from the ability to easily exchange data with their mobile response personnel.

The institutions that will benefit include 47 police stations, 92 fire stations and 30 hospitals or emergency medical stations. The primary intent of this network is to allow personnel in the field to access their agencies' databases and automated systems in a reliable and secure manner. In addition, we expect various types of public safety agencies to develop specific applications that will enhance their service to the public such as: photo ID, photo and video distribution, maritime monitoring, secure criminal record access, electronic command boards, wireless floor plans and patient tracking.

The State of Hawai'i and its partner counties are committed to this broadband data system and intend to expand and improve the network using state and local monies in the future, especially with respect to improving sites and middle mile connections that were not originally installed for public safety use. Our initial projections for subscribers to the network are based on public safety and government users throughout the state. At full operational capability, we expect the network to serve about 10,368

public safety users. This includes 3,516 police, 2,007 fire and 4,845 other users. Within the first four years of operation we expect up to 5,000 active subscribers. This project will provide 1000 subscriber units of those first 5,000. We expect user agencies to acquire the remaining units needed. Jobs saved or created will be 1,433 using grant (ARRA) funds.

The public safety agencies for the State of Hawai`i and it's four counties have the responsibility to prepare for and respond to natural disasters and other emergencies. The State of Hawai'i has been afflicted with volcanic eruptions, earthquakes, tsunamis, hurricanes, and wildfires throughout its history. Our isolation from the rest of the country and our island geography with four counties spread amongst numerous islands provide our agencies with very unique challenges. Much of the area in which our radio and microwave systems operate is remote and far away from commercial infrastructure. In addition, the sensitive nature of their operation is not adequately secured with commercial networks because the commercial providers do not provide a robust and resilient system for the data needs of our public safety personnel. That is, the commercial broadband data sites are not built to public safety standards, do not provide adequate priority to public safety users, and do not continue to operate when needed the most. This grant will give us the opportunity to build a broadband data system to address these concerns and provide robust, secure data services to emergency personnel throughout the state.

Our main goal will be to deploy a Long Term Evolution (LTE) broadband air interface system with as large a mobile coverage footprint as is possible using existing infrastructure. A secondary objective will be, only where necessary, to install or lease middle mile connectivity to make the system whole and redundant. Development and leasing of new facilities and towers to augment the network infrastructure will be kept to the absolute minimum required to achieve reasonable coverage goals and meet realistic construction timelines. Although a few of the facilities and connections we propose to use are not public safety grade, most noticeably those involving DOE sites and facilities, we have chosen to maximize the LTE coverage footprint rather than build robust middle mile infrastructure to those locations. The State of Hawai'i will provide overall management and operation of the public safety broadband service. The state and counties have established the Hawai'i Wireless Interoperability Network (HWIN) executive committee with high level representatives from them and federal organizations. The HWIN executive committee will serve as the advisory board to this system and as such will allow all the partners in the system a voice in operation and management.

The State Department of Accounting and General Services in partnership with the State Department of Defense have broad experience in operating and maintaining middle mile backhaul and infrastructure. They presently hold over 300 FCC land mobile radio or microwave licenses, all in good standing. Because the State of Hawai'i

and its partner counties do not have extensive experience in implementing or operating a sustainable broadband service, we will be utilizing contractor and vendor support to implement and operate the network. The State Department of Defense and the State Department of Accounting and General Services have been assured by a number of potential vendors that they are anxious to bid on a competitive contract to provide managed services for this project. Implementation of this project will require $149,950,000 ($115,061,000 grant, and $34,889,000 in matching funds). This is our cost to make the system functional for most of our first responders in the majority of the populated area of the state.

We believe that the project encompassed by this application would address the much-needed and critical communication needs for the emergency personnel throughout the State of Hawai`i, as well as assist Hawai`i in deploying the nationwide interoperable public safety broadband wireless network in the 700 MHz public safety broadband spectrum.

Thank you once again for this opportunity to participate in the BTOP awards process. Should you have any questions, please contact Hawaii's point person for broadband issues, Ron Boyer, Director, Department of Commerce and Consumer Affairs at 808-586-2850 or ron.boyer@dcca.hawaii.gov.

Sincerely,

LINDA LINGLE