

# U.S. SENATE ENERGY AND RESOURCES COMMITTEE

## HEARING ON ENERGY IN REMOTE AREAS

### TESTIMONY

Robert A. Underwood  
President, University of Guam  
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Hafa Adai and Good Morning,

It is an honor to be asked to share some ideas and perspectives on energy issues in remote areas, especially island communities. I am Robert Underwood, President of the University of Guam since 2008 and former Guam Congressional Delegate to the U.S. House of Representatives from 1993-2003. During my tenure at the University of Guam, I established the Center for Island Sustainability (CIS) and served as co-chair of the Guam Energy Task Force since its inception in 2009. The GETF was established pursuant to a joint initiative between the Office of Insular Affairs, DOI and the Guam Governor's office,

Our interest in island sustainability is predicated upon the common perception around the world that we are at a liminal moment where the balance between our activities as humans and the sustainability of our natural environment puts both at serious risk. While this is true around the world, it is especially true in small island societies because of the scale of our societies and the reality that almost all strategic thinking about resource, economy and people issues is formulated in large societies and, like so many other facets of human existence, small islands are left to pick and choose what they think may apply. At the University of Guam, we are trying to generate strategic thinking based on an ethical commitment to the sustainability of our island way of life, our natural environment and our economy in equal and mutually supportive measures. For us, this means the conduct of relevant, island-based research and the building of internal capacity to deal with the challenges we face whether it is energy dependence, climate change or human migration.

#### Island Conditions/Challenges

\*Our biggest export in Guam is money. As soon as we generate the funds, we export it to purchase off-island for most of our island needs. This is especially true for energy where we spend over \$300 million annually for petroleum-based fuel for our transportation and power needs. This represents approximately 7.5% of Guam's GDP. If we were able to capture large portions of that "export" through renewables and efficiencies, we could keep the money circulating in the Guam economy, generate jobs, improve the quality of our lives, make significant strides towards energy independence.

\*Power generation is provided by local power companies which face significant challenges to keep power constant and consistent due to infrastructure issues. Moreover, local power companies must

keep pace with environmental regulations as well as remain responsible stewards of long-term indebtedness.

\*Strategic planning which engages energy issues as a long-term social and economic issue as well as a technological matter is incoherent and tends to be driven by federal initiatives. This is complicated by “silver bullet” thinking and adaptation of models from larger societies.

\*Financing innovative technologies is complicated by capital shortages and the notion that this is a federal or external responsibility

\*Island power systems effectively must function as micro or mini-grids which limit the ability to provide consistent and efficient power

#### Island Solutions/Successful Policy

\*Strategic Planning which is holistically based and focuses on greater energy independence and the positive consequences which include economic growth and sustainability.

\*Understanding of the concept of “indigenous energy” and the adaptation of technology which promotes independence of action rather than more external dependence

\*Adoption of “stretch,” but achievable goals which reward innovation and spur participation rather than skepticism and opposition

\*Capacity building which is based upon training and education for the workforce and community outreach which enhances “Energy Literacy” rather than just computes dollars and cents computation of KW’s

\* Federal policy coherence- a multiplicity of funding sources and regulators and technical assistance possibilities does not facilitate coherence in small communities, but rather the creation of more silos inside small island communities.

\*Federal government should provide seed funding and technical assistance for innovative projects but also the establishment of “green funds” which are sustainable.

\*Development of all island and all islands solutions and networks. Individual communities must develop their own coherent policies and initiatives for individual sustainability. However we must join “All Islands” networks to share best practices and to avoid re-doing what has been done before. We have done this through the establishment of the Center for Island Sustainability and our annual conferences. We have also reached out to remote communities in Alaska through our relationships with the University of Alaska-Fairbanks campus.

The Committee’s efforts and the efforts of our partners in the Office of Insular Affairs, DOI and other federal agencies will be greatly enhanced by adopting policies which reward demonstrated

collaboration, successful projects and build capacity. A key factor in this is to look not just at territories or political jurisdictions, but to adopt an “All Islands” approach through the participation in existing networks of support, information exchange and research amongst all island whether they are in the Pacific, the tropical Caribbean, Alaska or the New England coastline.

I will be happy to answer any questions and discuss the UOG experience specifically with various grants and our support of the Guam Energy Task Force.