

Inside Passage Electric Cooperative Sustainable Energy for Sustainable Communities



Jodi Mitchell, CMA
Chief Executive Officer &
General Manager

Inside Passage Electric Cooperative Energy Plan - 2009

IPEC: A Member – Owned, Customer - Focused Cooperative

Inside Passage Electric Co-op, or IPEC, is a non-profit, tax-exempt, consumer-owned and governed electric utility serving over 1,300 members in the rural southeast Alaska communities of Angoon, Hoonah, Kake, Klukwan, and the Chilkat Valley.



IPEC Company Objectives

Power Supply

- Safe
- Adequate
- Reliable

Business

- Affordable Prices
- Stable Prices
- Lowest prices consistent with sound business practices
- Grow company to reduce unit costs

IPEC Community Objectives

Local Economic Conditions

- Support Econ. Development Initiatives/New Industry
- Promote Local Employment
- Support Regional Infrastructure development

Environmental Sensitivity

- Consider impact of decisions on next 7 generations
- Minimize harmful emissions
- Fuel handling and storage create environmental concerns for our pristine communities.

Current Situation

3 Communities Served by Diesel

**2 Communities Served by Purchased Hydro
w/Diesel Backup**

3 IPEC – Owned Diesel Generating Plants

Angoon

Kake

Hoonah

1 IPEC – Owned Diesel Plant to Backup Purchased Hydro

Chilkat Valley

Klukwan

Issues/Challenges

- Reliance on self-generated diesel power and purchased hydro power
 - Limits response options to volatile/high fuel costs, volatile/high electric rates, and environmental concerns
 - Results in IPEC member dollars providing margins for other companies rather than strengthening the Cooperative for the long term

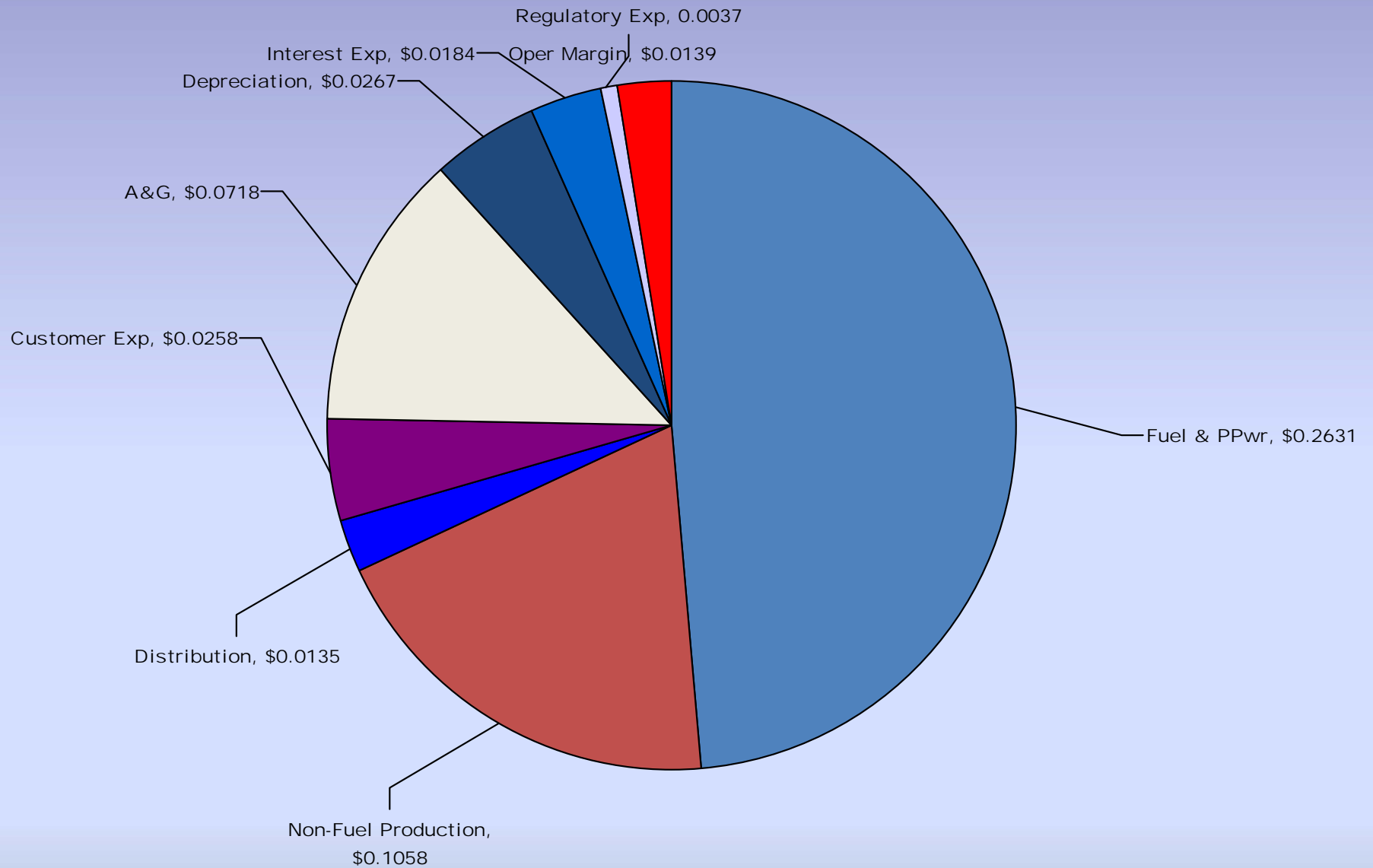
- Isolated rural communities have limited economies of scale and scope
 - High per customer unit costs
 - High electric rates discourage new industry

- Rural supply chains for fuel, materials, and labor complicate business processes
 - Zero fuel energy investments enhance sustainable communities
 - One-time investments in long-term projects like hydro simplify economics

- Finding stable, reliable, affordable electricity sources must be a community goal

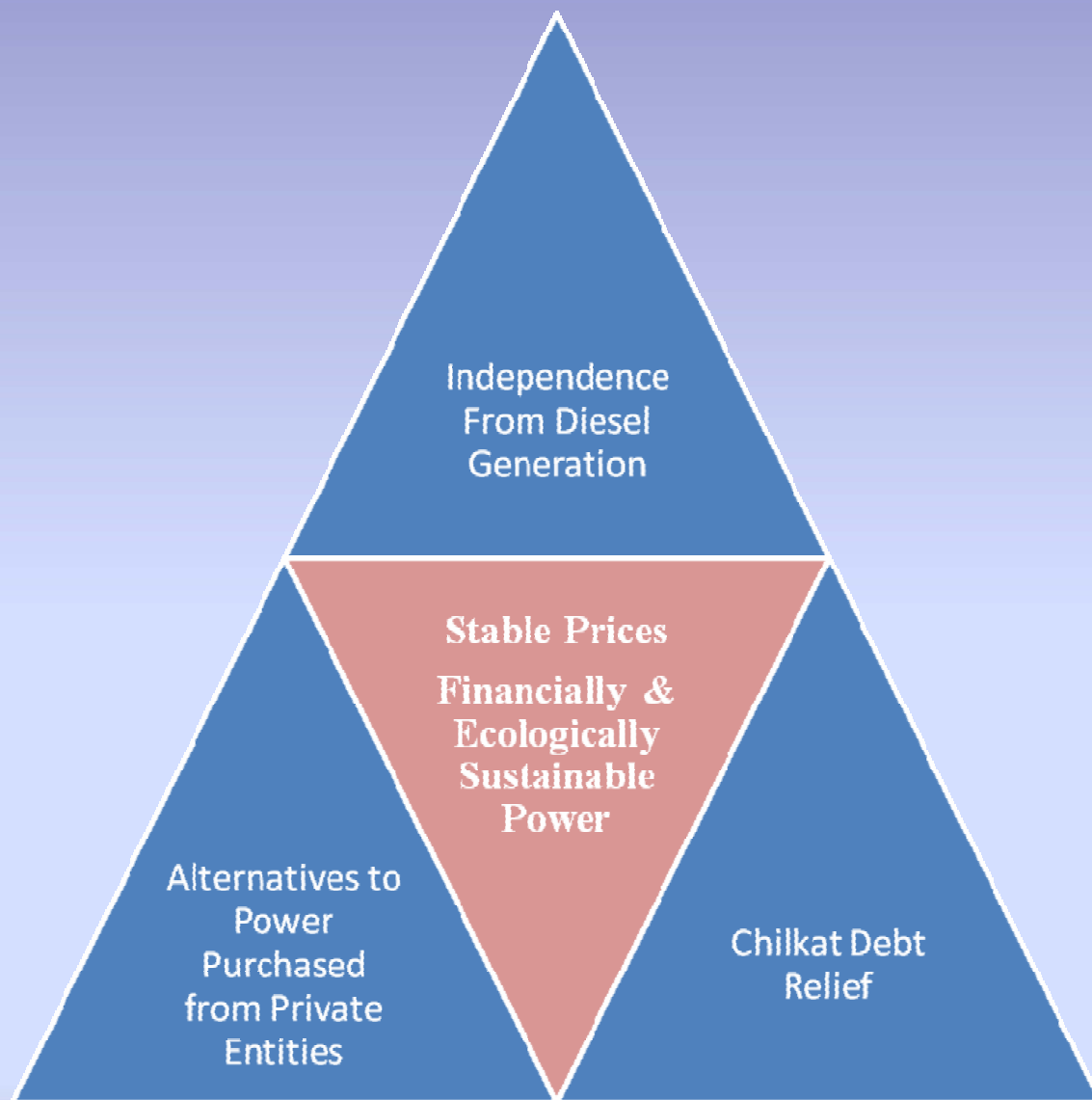
- High level of debt associated with Chilkat Valley limits financial flexibility (\$18,000 investment per Chilkat Valley Customer vs. \$4,000 for other customers)

October 2008 Average Cost per kWh Sold= \$.5391



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Three Major Initiatives



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Achieving Independence from Diesel by 2015

	Hydro	Tidal	Biomass	GeoThermal
Angoon	Thayer Creek Project – Displace over 90% of diesel. Partner with Kootznoowoo, AEA, and SEC	Potential technologies under review by others. No project proposed	Primarily Evergreens. Logistical issues exist. No feasibility study of supply chain exists.	Limited Potential. No project on the horizon.
Kake	Petersburg intertie – 100% of needs. Cathedral Falls – 75% of needs. Secondary priority to Tye intertie.	No potential identified	Kake Tribal Wood. Logistical issues exist. No economic feasibility study of supply chain exists.	No potential identified
Hoonah	Mud Bay hydro potential . Gartina, Water Supply, and Elephant Falls Creek hydro projects can displace over 50% of diesel. Green’s Creek Intertie shown in SEC long range regional plan.	Potential technologies under review by others. No project proposed	Logistical issues exist. No economic feasibility study of supply chain exists.	GeoThermal sites with in area – AEA will assist with exploration/ identification.
Chilkat / Klukwan	Current Purchases from Southern Energy and APT Walker Lake hydro potential	No potential identified	Logistical issues exist. No economic feasibility study of supply chain exists.	No potential identified

Most Promising Alternatives



Angoon Thayer Creek Hydro

- Over 90% of Needs
- Site owned by Kootznoowoo
- AEA/SEC help needed to kick start
- Partnership Opportunity



Kake Petersburg Hydro Intertie

- 100% of Needs
- Synergies with Integrated Corridor for Road/ Communications
- Cathedral Falls hydro next option



Hoonah Gartina, Water Supply, Elephant Falls, Mud Bay Hydro

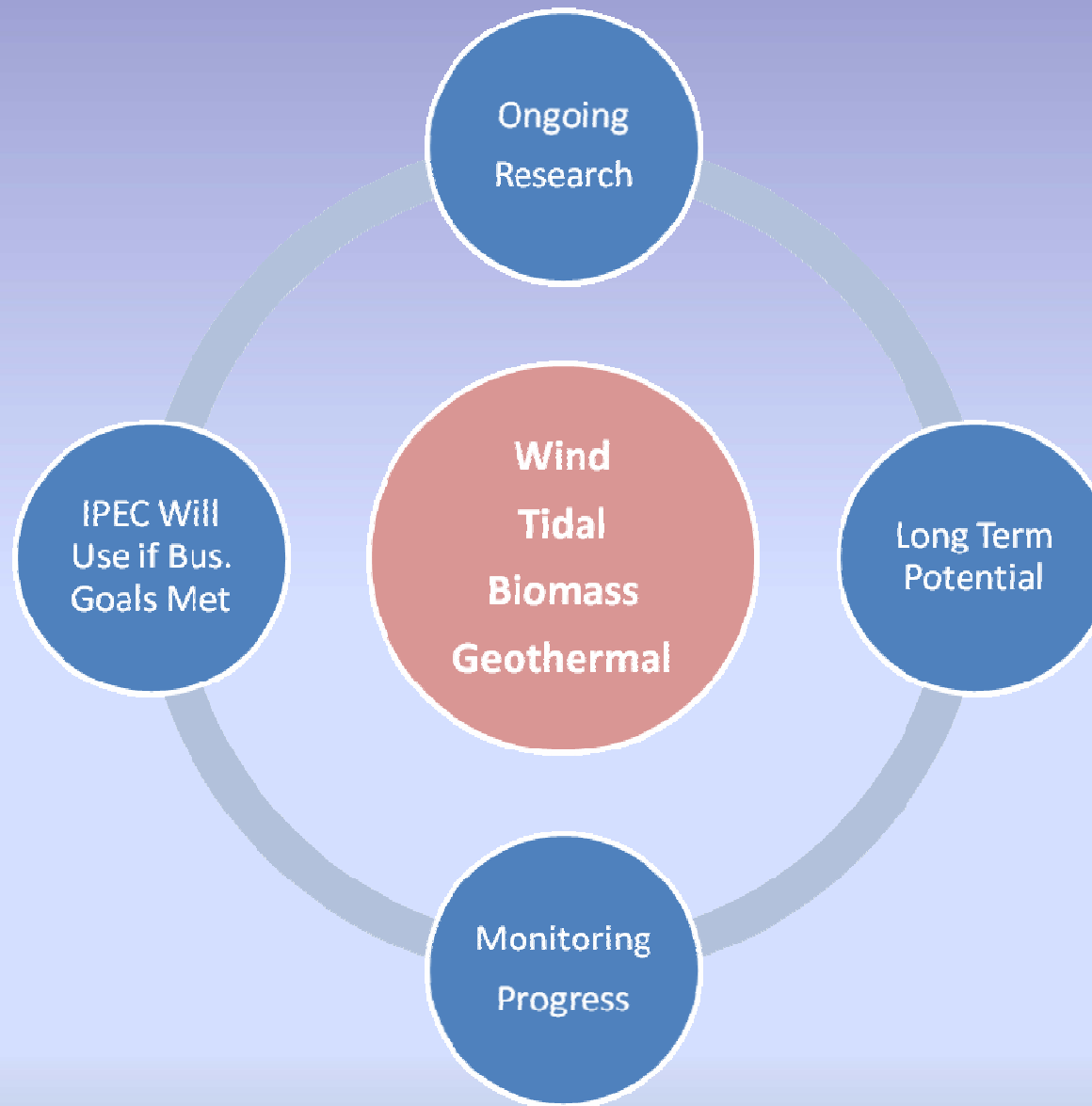
- Over 50% of Need
- Modest cost
- AEA final design needed
- Green's Creek Intertie in Long Range Region Plan



Chilkat Valley/ Klukwan Pursue Hydro Ownership and Debt Relief

- Currently served via purchased hydro – Southern Energy and APT
- Walker Lake hydro possible

Non-Hydro, Non-Diesel Alternatives Not Yet Ready



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Future Local Area Interconnection Possibilities

➤ Hoonah/Pelican

- Pelican Hydro facility interconnection to Hoonah
- Integrated Corridor provides road/communications access between communities
- Pelican Access to More Frequent AK Marine Highway service and Hoonah Airport

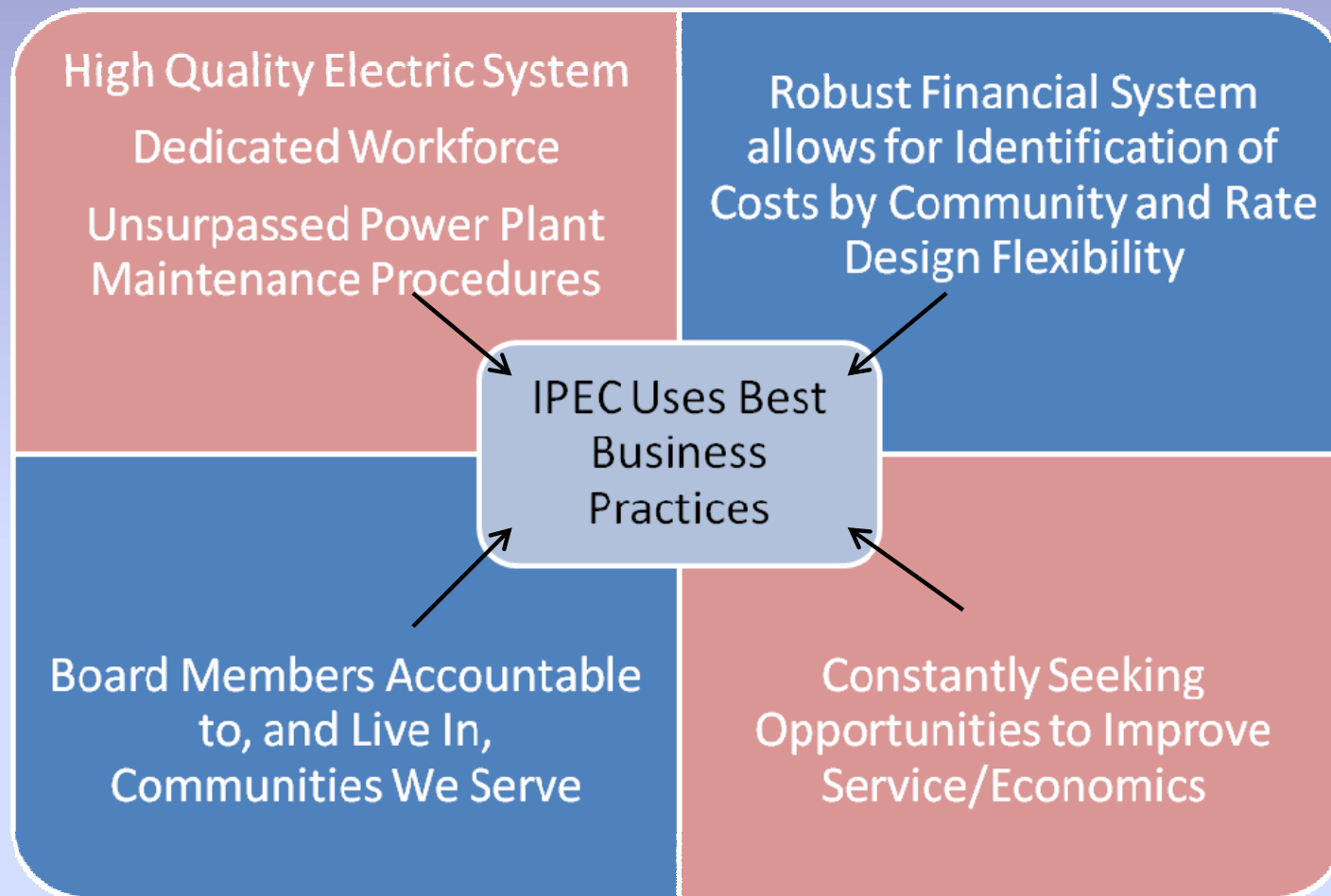
➤ Hoonah/Elfin Cove

- Provide Elfin Cove with access to Hoonah Hydro capabilities
- Integrated Corridor provides road/communications access between communities
- Elfin Cove access to AK Marine Highway service at Hoonah

State Support Requested for 2009

- Kake/Petersburg Intertie (AEA Recommended Funding)
- AEA Final Design for Hoonah Hydro projects – June 2009
- Funding Ownership Opportunities in Chilkat Valley/Klukwan
- Support from AEA & Southeast Conference to Kick-Start Thayer Creek hydro
- Debt Relief for Chilkat Valley
- AEA Feasibility Review of Hoonah/Pelican Intertie
- AEA to investigate Mud Bay Hydro for Hoonah
- AEA to investigate geothermal potential near Hoonah
- Investigate Walker Lake Hydro for Chilkat Valley and Klukwan

IPEC is Dedicated to the Wise Use of Resources



You Can Count on Us - Can we Count on You?

- Continued State Support towards development goals
- Continued Partnership with Southeast Conference and AEA, and Interaction with Tlingit-Haida Tribal Energy Department
- Active Engagement/Input From Member-Owners

Jodi Mitchell, CMA
Chief Executive Officer & General
Manager
Inside Passage Electric Cooperative
jmitchell@alaska.com
(907) 789-3196