

*Attachment 3
Jan 16, 2017*

UAMPS Carbon Free Power Project (CFPP)

Briefing to Idaho Legislative
Committee

January 16, 2017



Description of UAMPS

- UAMPS is an Energy Services Interlocal Agency
- Created in 1980 under State of Utah statutes
- 47 members in 7 Western states
 - Most are municipal electric utilities
 - Offer an array of various services and projects
 - Members free to develop their own projects w/o the group

UAMPS Organization

- Project-Based
 - 17 projects of various categories
- Energy Services
 - Assist members in their energy needs
- Not-for-Profit

Member Area Map

Starbuck Power Group, PLLC

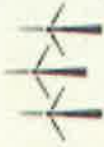
O R E G O N



Starbuck
1116 A

Low Voltage Storage

W Y O M I N G



Alameda Energy LLC

Energy 10100

Transtar (Laramie) P, LTD

W E B

Laramie

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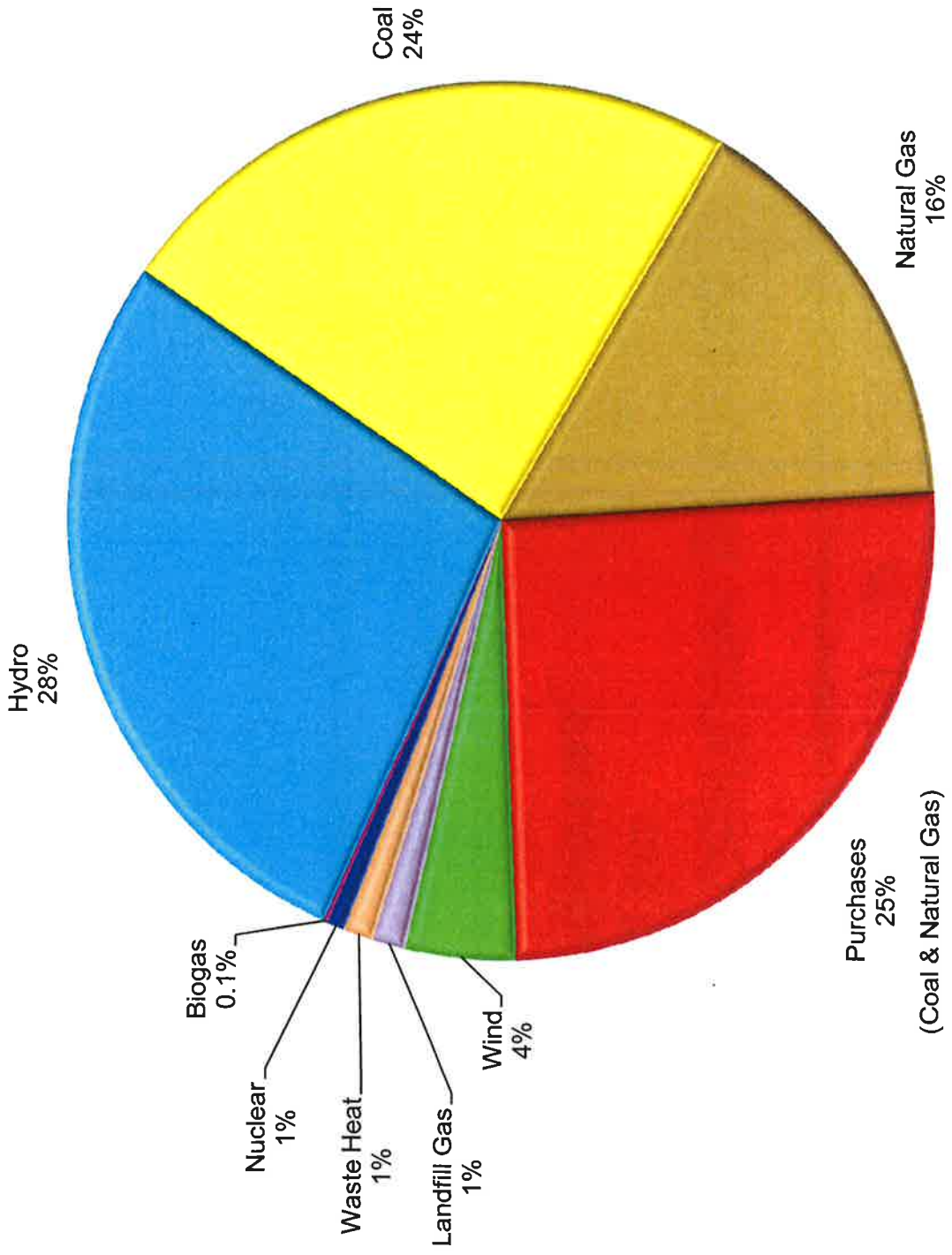


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C A L I F O R N I A

N E W M E X I C O

UAMPS Resources by Type: 2015-2016



UAMPS' Concerns

- **Future of Coal fueled generation**
 - Clean Air Act
 - Clean Power Plan
- **Future of power market**
 - Derivative of coal fueled generation
- **Future of natural gas fueled generation**
 - What is the end-goal for CO₂ reduction?
 - Fuel price volatility

What is the CFPF?

- Carbon Free Power Project - UAMPS effort, to examine how to de-risk UAMPS' exposure to carbon regulation
- Three pronged approach - Investigation of Nuclear Small Modular Reactors, Energy Efficiency, and Distributed Generation (Rooftop Solar)
- Pursue Above 3 Resources:
 - Industry is shifting towards cleaner forms of electricity production, which is characteristic to all 3 of the above resource options.
- Developing this resource option by additional work on submitting an application to the Nuclear Regulatory Commission to ultimately construct and operate the CFPF Project

UAMPS' Approach to Environmental Regulation

- Manage risk associated with environmental compliance obligations
- New Resource Option Feasibility – A cost competitive resource that will meet environmental compliance over its expected lifespan.
 - Coal - Every indication is that existing coal resources will not be competitive due to proposed and future regulations.
 - Natural Gas – Possible growing environmental compliance obligations surrounding natural gas generation.
 - Nuclear - Poses no risk of greenhouse gas compliance costs and other environmental compliance are minimized by NuScale's technology.

Past/Present Environmental Regulatory Pressures

- Clean Power Plan
 - Regulates CO₂ from existing UAMPS carbon resources, but suggests a very tough regulatory environment for new carbon resources
 - Compliance cost impact on existing coal plants uncertain
- Clean Power Plan was stayed by the U.S. Supreme Court in February 2016
 - Trump unlikely to implement the Clean Power Plan

Carbon Free Power Project

- Need for a reliable replacement for carbon dioxide emitting generation sources
 - Energy Efficiency
 - Customer satisfaction with correct incentives
 - Customer makes subsidized (?) capital investment
 - Rooftop solar or other distributed generation
 - Feed-in tariff with Member (local utility) or UAMPS
 - Customer makes subsidized (?) capital investment
 - NuScale Modular Reactors
 - Baseload with flexibility resource
 - Safety
 - Scalable & with load following capability

Why the CFPP?—Concluding remarks

- NuScale’s technology has promise to be a cost competitive resource with reduced exposure to future environmental regulations (GHG regulation)
 - Reduced environmental footprint - reduced environmental exposure
- Future GHG regulations are uncertain at present—but increased regulatory pressure on carbon emitting resources is certain
 - These regulatory pressures will result in compliance costs
 - Magnitude of these costs will be known as CFPP development proceeds
- These environmental compliance costs have the potential to make UAMPS’ existing carbon emitting resources and coal based market purchases uneconomic

Site Selection

Four Acceptable Sites

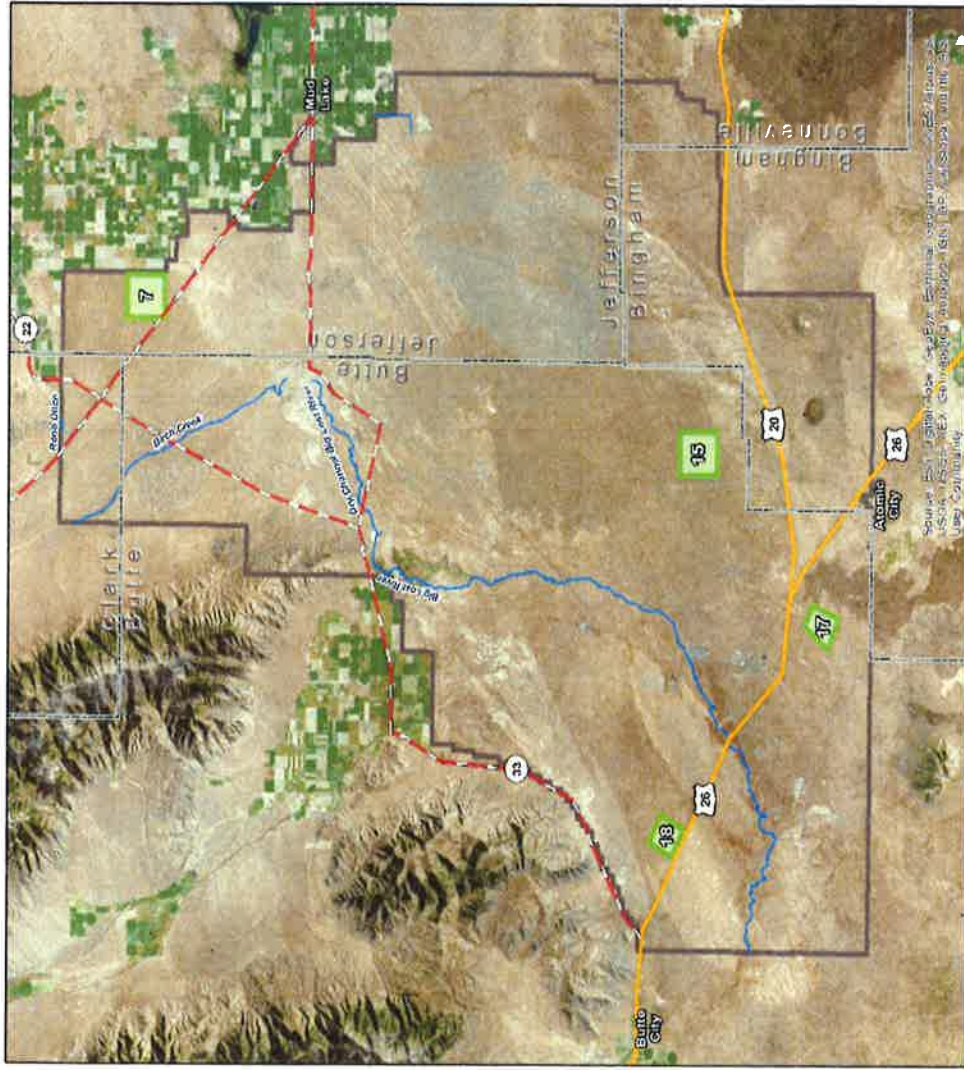


Figure 1: Acceptable Sites Overview Map

1:340,000
 Confidential and Business Sensitive

CFPP Transmission

- UAMPS has undertaken a high-level analysis of the existing transmission system for the INL site
- UAMPS has submitted an interconnection request to PacifiCorp order to understand the transmission line upgrades necessary for the CFPP
- CFPP transmission will be studied by NTTG technical working group
- UAMPS objectives for CFPP Transmission:
 - Minimize environmental disturbance (co-location with existing lines)
 - Coordinate with PacifiCorp and Idaho Power on transmission planning for the area

Site Selection Process

- Next steps
- Continue engagement with Shoshone – Bannock Tribes in consultation process
- Idaho State government offices
 - Idaho Governor's Office
 - Idaho Attorney General's Office
 - Idaho Department of Environmental Quality
 - Idaho Department of Water Resources
 - Idaho Department of Commerce
- Regional economic development

Regional Economic Development Potential

- ~1000 construction jobs at its peak, for about 2-3 years
 - Example: Welders, riggers, pipefitters, masons, carpenters, millwrights, sheet metal workers, electricians, ironworkers, security
- Once plant is operational;
 - About 360 workers with average salaries of \$85/000/yr
 - Example: Certified operators, electrical, mechanical maintenance, administrative, security
- Eastern Idaho economic benefits from related industries
- UAMPS will give preference to local individuals that are qualified for plant positions

Schedule

- Plant Licensing: 2017- 2022
- Site Mobilization, Construction & Startup: 2020 – 2026
- Commercial Operations: 2026



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