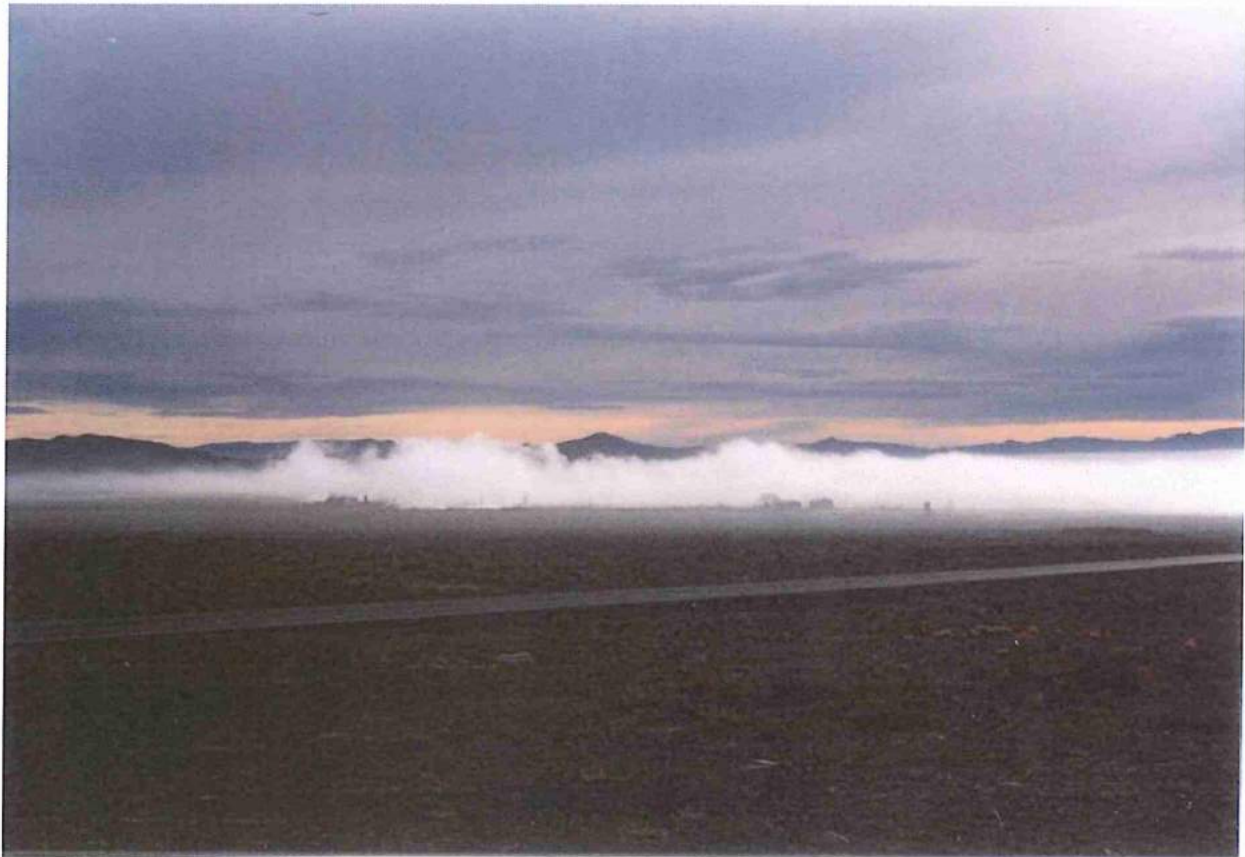


Yerington Paiute Tribe Energy Plan



March 2014

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Summary

The Yerington Paiute Tribe has made energy management and planning a priority. The Tribal Council has recognized that energy is an important component of their goal of self-sufficiency. Additionally, recognizing energy development as a component of the Tribe's natural resources provides for needed economic development.

Currently, over 80% of the energy required for commercial and government buildings is provided from solar panels installed in the past 3 years. The Tribe is now focusing on energy solutions for housing as well as potential energy based economic development. The Tribe has also been collecting meteorological data for over 10 years along with geologic data as part of their Environmental program.

The initial energy economic analysis for energy at the Reservation is outlined in Section 2 below indicates that the Tribe's solar program is a priority and that geothermal and wind may also be components of future energy projects. As the economic analysis is integrated into future market analysis, the feasibility of the projects can be evaluated. However, models such as direct sales of power to mining are included in the examples presented in Section 2.4. Section 2.4 also outlines current infrastructure: most important the Tribal properties are located near major transmission.

In order to improve energy independence the Tribe had to overcome issues related to the scattered application of energy projects throughout Tribal departments. Through direction from the Tribal Council and assistance from the Department of Energy First Steps Grant the Tribe has learned that a unified approach to energy planning has improved the efficiency and application of energy projects.

A number of priorities have been identified for energy development as outlined in Section 3. These range from immediate housing needs such as weatherization and solar to interest in energy as economic development. Some of those resources, such as weatherization, are advanced efforts with limited evaluation needs while other such as commercial wind requires additional evaluation for both resource and acceptability.

In conclusion, cultural issues are always important in evaluating natural resource use. Through meetings with the Tribal Council, Tribal Leaders and administration interviews, community outreach and responses from progress reports. Continued solar development has been found to be consistent with available resources and have the least potential negative cultural impact. Impact can also be reduced by continued planning of solar installation in open historical agricultural property avoiding the more unique wetland and riparian habitat on the Reservation.

Next steps for the Tribe will include other energy development, including wind and geothermal. Both will require additional evaluation of potential resources as well as review with compatibility with Tribal life. However, Section 4 outlines the legal process to develop the organization needed by the Tribe to advance additional evaluation and feasibility studies.

**Draft Yerington Paiute Tribe Energy Plan
December 2013**

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1.0 Energy Vision Statement

The Yerington Paiute Tribe's Energy Vision Statement is:

It is the vision of the YPT to develop energy efficient resources for the Tribe.

With the goals of:

- 1. provide alternative energy to all tribal government and business entities*
- 2. include alternative energy in all economic development proposals and plans*
- 3. reduce energy costs to tribal members through weatherization and use of alternative energy*
- 4. all future identified construction will adopt the use of alternative energy in all future construction*

The Yerington Paiute Tribe has addressed a number of energy issues over the last few years as the need to improve energy independence and capitalize on local energy sources has been identified. Historically, these projects have included a variety of Tribal departments and relatively unrelated programs. This scattered approach has created concern for both efficiency and applications within the values and needs of the Tribe. The Tribal Council has now directed staff to seek a unified energy planning effort to develop projects consistent with the needs of the Tribal members and values of the Tribe to provide energy independence and security. To begin this process, the Yerington Paiute Tribe sought a Vision Statement that summarized their goals and objectives for the Tribal Energy Program.

2.0 Energy Market and Economic Analysis

2.1 Location and Setting

The Yerington Paiute Tribe is located in Lyon County, California. The location is typical of the Great Basin in Nevada with much of the area being north-south trending valleys with an arid, desert climate (Figure 1). The Tribal trust properties include a Reservation immediately outside of Yerington, NV and the Colony in town, both located within Mason Valley. The area receives slightly over 5 inches of rainfall per year.

General energy resource maps (Figure 2, through Figure 5) identify expected regional wind, solar, biomass and geothermal resources potentially available to the Yerington Paiute Tribe. Of these resources, solar is extensively utilized on the Reservation with geothermal resources utilized regionally. Although a number of plans for wind energy have been developed for the region, wind is limited to residential sized application locally.

The Sierra region does include some local hydroelectric facilities (Figure 6). However, these are to the west and local, only small facilities are noted. The terrain for the Tribal property is generally flat and with limited surface water, making hydroelectric generally unfeasible.

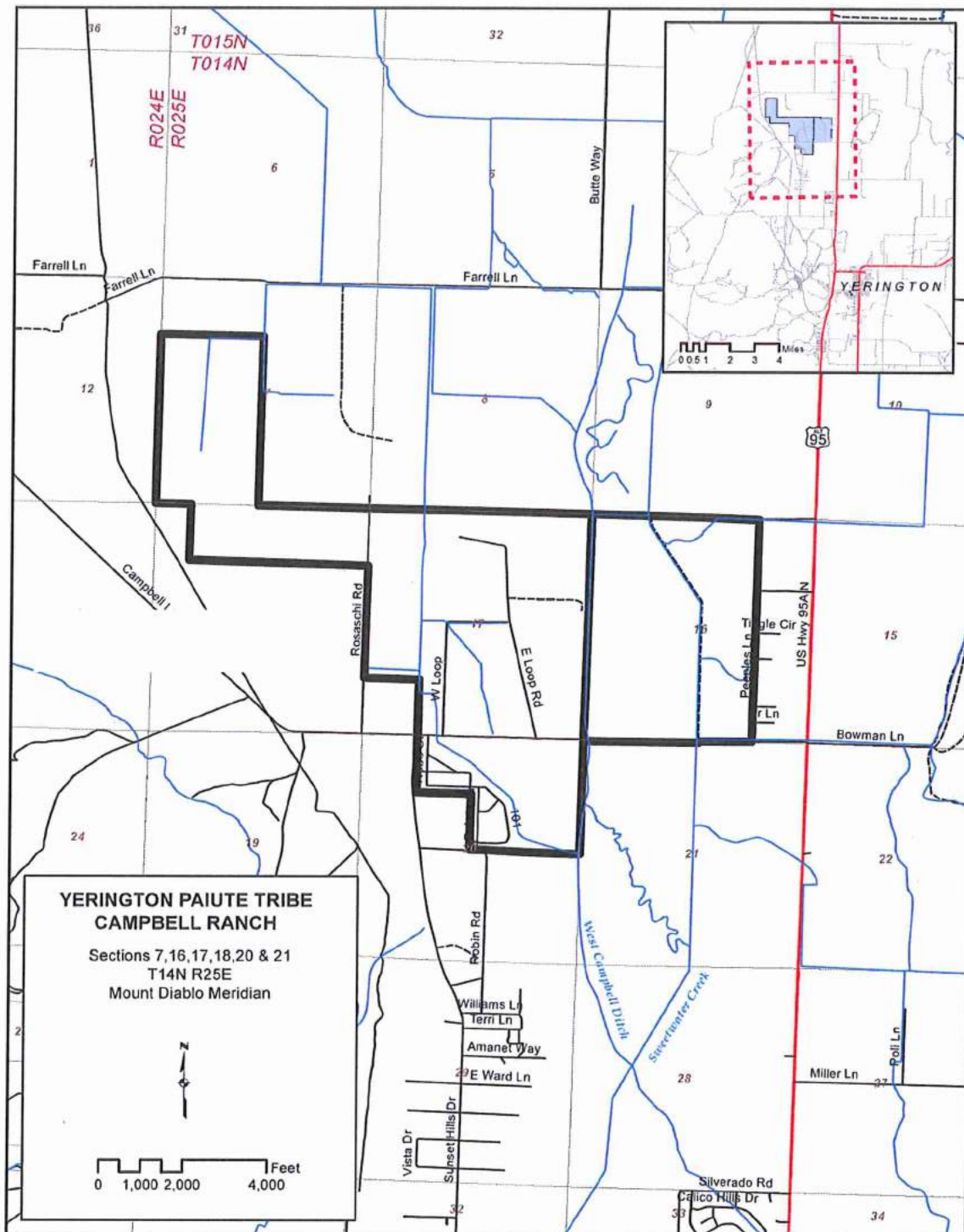


Figure 1. Location map for the Yerington Paiute Tribe Reservation (Campbell Ranch). The Yerington Paiute Colony is located in the town of Yerington.

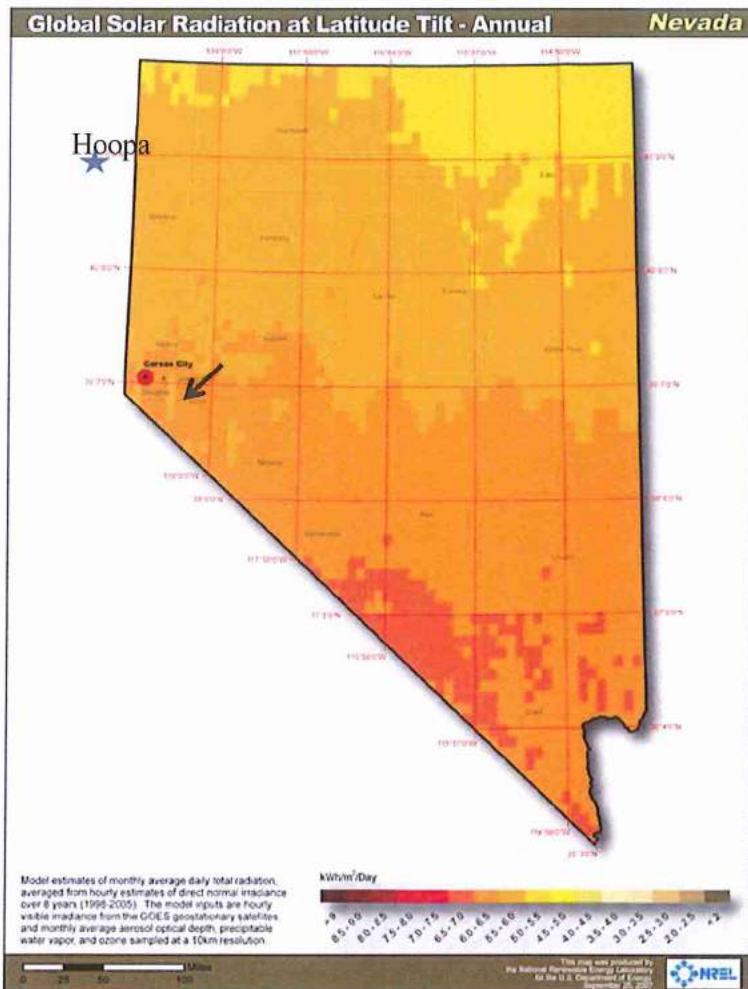


Figure 2. Solar insolation values for Nevada. Values would be considered good to excellent at approximately 5.5-6.5 kWh/m²/Day. Yerington is in Lyon County immediately southeast of Carson City and marked with the arrow.

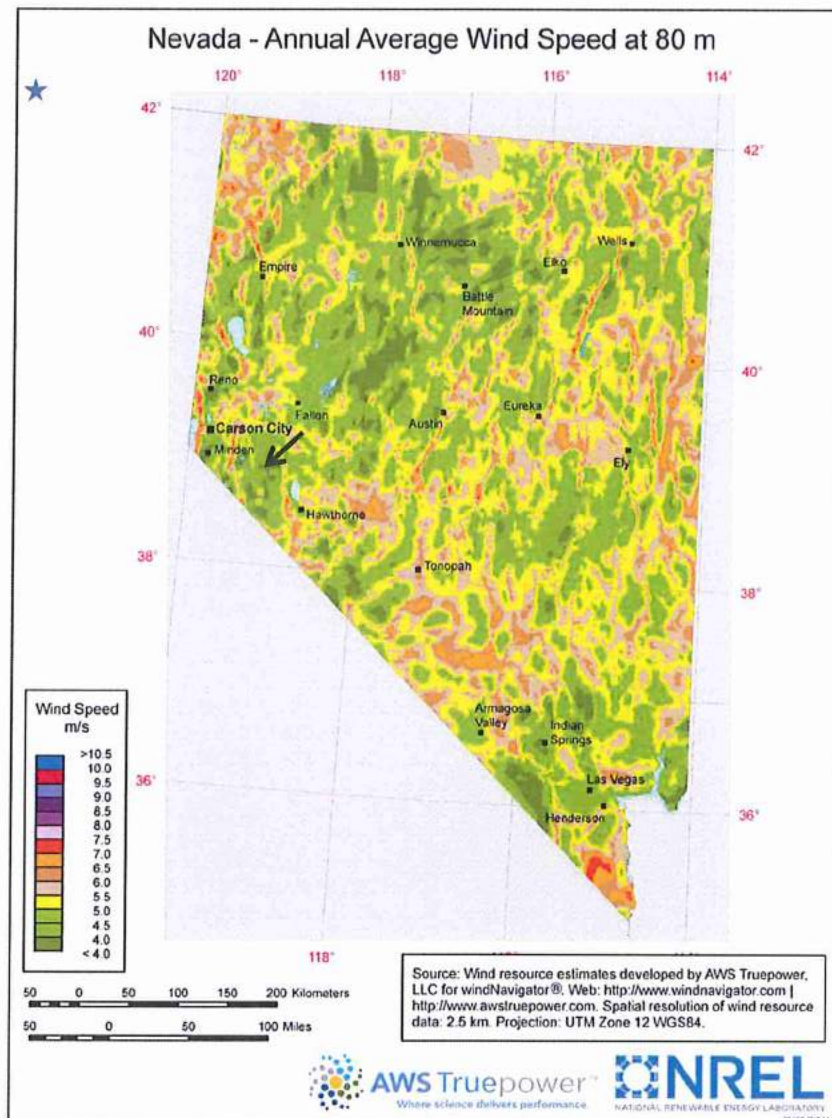


Figure 3. Wind power potential for Nevada. Wind speeds for energy production are generally fair to low for the immediate region with wind speeds estimated at 4.0–6.0 m/s.



Figure 6. Hydroelectric facilities near the YPT Reservation. The Tribal property is flat and includes limited surface water, making hydroelectric power generally not feasible.

2.2 Current Energy Use

All electricity is provided to the Tribe through NV Energy (Figure 7). Natural gas is provided via pipeline by the Southwest Gas Corporation (Figure 8). Some homes use wood for heating, however, during community meetings residents indicated that this was a decreasing trend. Cost for firewood has increased while accessible harvesting decreased, according to residents.

The Yerington Paiute Tribe has installed approximately 500 kw of solar for government and Tribal businesses meeting more than 80% of those needs. The installs are net metered and principally ground mount solar installs. The remaining administrative and commercial facilities that do not have solar are limited to the smoke shop and Environmental office which both use electricity on a smaller scale and will likely be included in later phases of alternative energy installation along with similar sized residential projects.

Estimates for residential use do require additional refinement; they are based on limited data. However, Tribal housing can be relatively consistent, making the data likely useable for scoping. The average power use was found to be 325 kWh and 33 therms (natural gas) per month. This placed the average bill at approximately \$135 per month. Total annual power use for the 280 homes is then 91,000 kWh and 9240 therms per month for a domestic energy market of \$453,600 per year.

None of the Tribal homes have solar. Considering 1.2 million of 113.6 million U.S. homes (1.06%) use residential solar (EIA 2009), it can be assumed that the rate for the Yerington Paiute Tribe homes is below the national average.

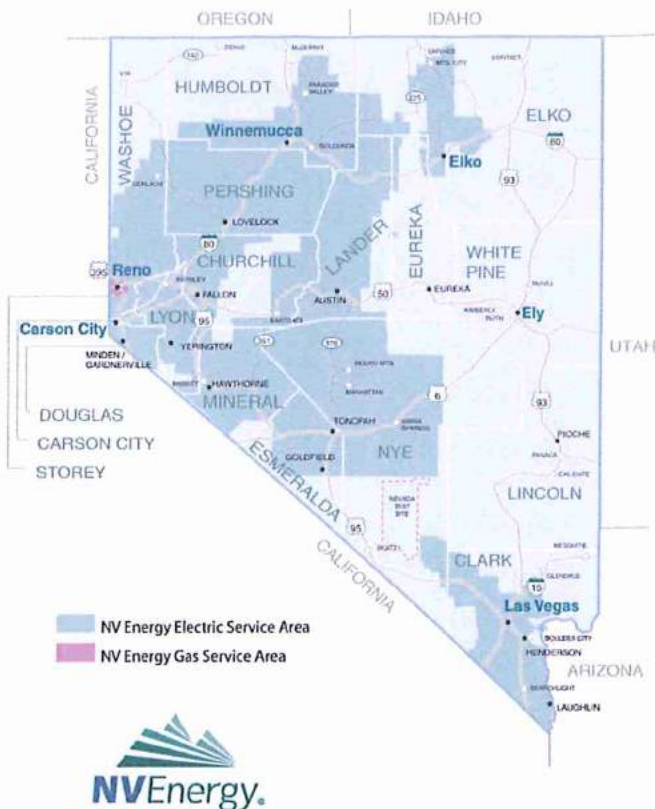


Figure 7. NV Energy service area. Electricity is supplied to the Tribe but gas distribution is limited to outside the area in Reno.

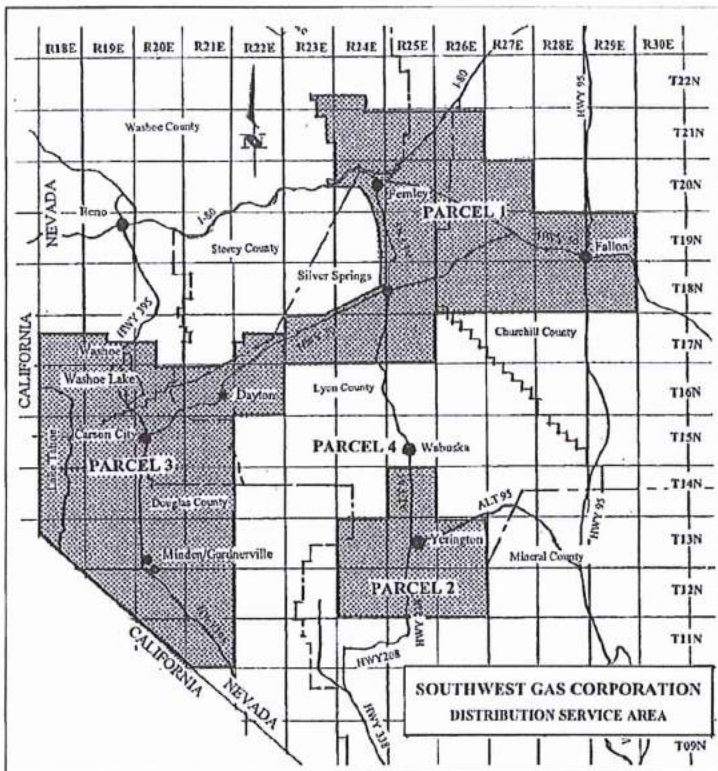


Figure 8. Natural gas distribution by Southwest Gas Corporation which includes Yerington.

Black Rock Solar has made solar installation estimates for the Tribe, using 4kw recommended for most housing. This is actually larger than the electric use and would allow for some electric heat on net metered systems, reducing the cost for natural gas (expressed as therms above). These would be about \$20,000 per home for a total of 5.6 million dollars to provide solar to the 280 homes on Tribal property. This includes \$5/watt installation cost and no subsidies.

	<u>19th Revised</u>	P.U.C.N. Sheet No.	<u>12</u>
Canceling	<u>18th Revised</u>	P.U.C.N. Sheet No.	<u>12</u>

Figure 9. Current power rates for NV Energy.

SOUTHWEST GAS CORPORATION
P.O. Box 98510
Las Vegas, Nevada 89193-8510
Nevada Gas Tariff No. 7

Canceling 20th Revised P.U.C.N. Sheet No. 13
19th Revised P.U.C.N. Sheet No. 13

STATEMENT OF RATES

EFFECTIVE RATES APPLICABLE TO NORTHERN NEVADA SCHEDULES ^{1/2/}

Schedule Number	Type of Charge	Delivery Charge ^{3/}	Gas Cost		Renewable Energy Program Rate	Currently Effective Tariff Rate
			Base Tariff Energy Rate ^{4/}	Deferred Energy Account Adjustment		
NG-WP	Water Pumping Gas Service					
	Basic Service Charge per Month	\$ 36.00				\$ 36.00
	Commodity Charge per Therm:					
	All Usage	\$.12915	\$.62994	(\$.10396)	\$.00077	\$.65590
NG-EG	Small Electric Generation Gas Service					
	Basic Service Charge per Month	Otherwise Applicable Rate Schedule				
	Commodity Charge per Therm:					
	All Usage	\$.13098	\$.62994	(\$.10396)	\$.00077	\$.65773
NG-CNG	Gas Service for Compression on Customer's Premises ^{6/}					
	Basic Service Charge	\$ 25.80				\$ 25.80
	Commodity Charge per Therm:					
	All Usage	\$.10489	\$.62994	(\$.10396)	\$.00077	\$.63164
NG-L	Street and Outdoor Lighting Gas Service					
	Commodity Charge per Therm:					
	All Usage	\$.85316	\$.62994	(\$.10396)	\$.00077	\$ 1.37991
NG-OS	Optional Gas Service	As specified on Sheet Nos. 48 through 51.				
NG-AS	Alternative Sales Service	As specified on Sheet Nos. 52 through 53.				

1/

The charges shown above are subject to adjustments for taxes and assessments.

2/

Customers taking transportation service will pay the Basic Service Charge, the Delivery Charge per therm, and Demand Charge, if applicable, of the Currently Effective Tariff Rate for each meter included in the transportation service agreement, plus an amount of \$(.00184) per therm for distribution system shrinkage as defined in Rule No. 1 of this Nevada Gas Tariff for all volumes of gas not delivered through a direct connection to one of the Company's upstream interstate pipelines, and a Transportation Service Charge of \$500.00 per month per individually qualifying premise. For purposes of calculating Payment for Excess Imbalances, the Imbalance Commodity Charge is \$.39157 per therm and the Imbalance Reservation Charge is \$.27777 per therm. For customers converting from sales service, an additional amount equal to the currently effective Deferred Energy Accounting Adjustment will be assessed for a period of twelve (12) months.

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April 4, 2013

Effective:

April 9, 2013

Advice Letter No.:

Issued by

John P. Hester

Senior Vice President

Figure 9. (continued) Current power rates for NV Energy.

SOUTHWEST GAS CORPORATION
P.O. Box 98510
Las Vegas, Nevada 89193-8510
Nevada Gas Tariff No. 7

Canceling 5th Revised P.U.C.N. Sheet No. 13A
4th Revised P.U.C.N. Sheet No. 13A

STATEMENT OF RATES
EFFECTIVE RATES APPLICABLE TO NORTHERN NEVADA SCHEDULES ^{1/2/}

3/ Includes the following:

Component/Schedule	NG-RS	NG-RM	NG-RAC	NG-G1	NG-G2	NG-G3
Margin	.33097	.35600	.26981	.27810	.10086	.03582
General Revenues Adjustment	(.03910)	(.04381)	.00000	(.04213)	(.02921)	(.02921)
Total	.29187	.31219	.26981	.23597	.07165	.00661

Component/Schedule	NG-G4	NG-AC	NG-WP	NG-EG	NG-CNG	NG-L
Margin	.01226	.07886	.12915	.13098	.10489	.85316
General Revenues Adjustment	.00000	.00000	.00000	.00000	.00000	.00000
Total	.01226	.07886	.12915	.13098	.10489	.85316

4/ For all rate schedules, the Base Tariff Energy Rate (BTER) includes \$0.00185 per therm for the Unrecovered Gas Cost Expense Base Rate.

5/ The total monthly demand charge for Transportation Eligible General Gas Service is equal to the unit rate shown multiplied by the customer's billing determinant.

6/ The charges for Schedule No. NG-CNG are subject to adjustments for applicable state and federal taxes on fuel used in motor vehicles.

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John P. Hester
Senior Vice President

Figure 9. (continued) Current power rates for NV Energy.

2.3 Future Power Use

The Yerington Paiute Tribe is located in a prime area for solar energy and the Tribe has made a commitment to using solar energy for commercial and government buildings. Additional economic development and expansion of government facilities are planned to include solar or other comparable energy facilities.

The Yerington Paiute Tribe is located in Lyon County which has seen a negative growth rate in population of 1.3% from 2010 to 2012. 14.3% of Lyon County's population lives below the poverty line with a median household income of \$46,088 between 2008 and 2012. For Lyon County, residential energy use may actually decrease with a lower than average income and shrinking population.

Although total energy use in Nevada has increased, this is often attributed to increasing population (Figure 10) and industry. The per-capita energy use is actually decreasing (Figure 11). By 2010, Nevada reduced its per capita energy consumption by 26.6% since 1990, already surpassing the federally mandated 25% goal for 2012.

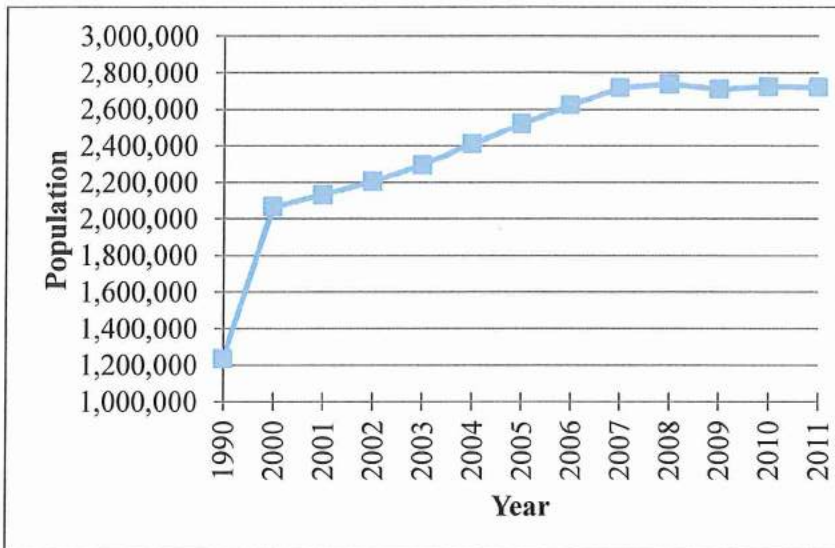


Figure 10. Population of Nevada by year. Data from Nevada State Demographer.

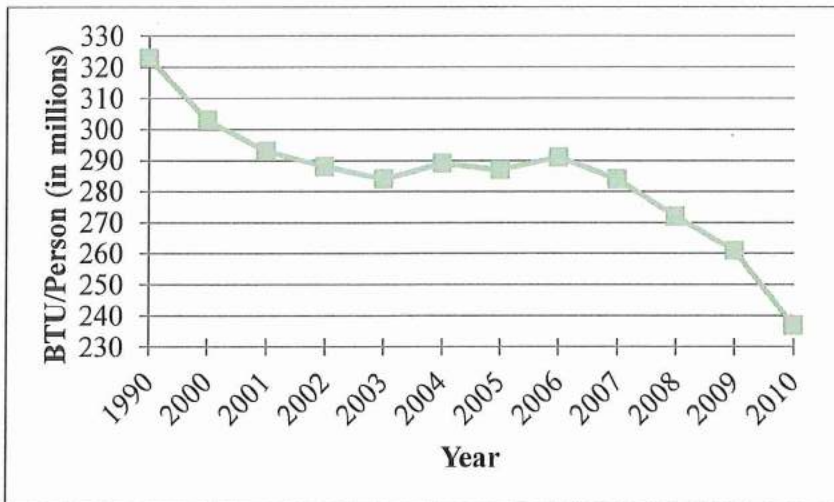


Figure 11. Per-capita energy use for Nevada by year. Data from the U.S. Energy Information Administration.

In 2011, Nevada Power's sale of electricity in southern Nevada surpassed the 15% RPS (Renewable Portfolio Standard) requirement, achieving an energy use of 16.7% from renewable sources, with 10% coming from solar sources (doubling the solar RPS requirement). Some areas in northern Nevada reached 24.9% renewable energy retail sales. For the near future, additional sales to the utility may be limited due to the RPS requirement being met and other sources such as natural gas decreasing in price. However, these figures clearly show the acceptance and use of renewable sources in Nevada for the long term.

Non-residential power use changes were also more volatile. Changes in non-residential power use may reflect an economic effect; a local downturn in the economy that included 2008 would be expected to reduce commercial power needs and mirrors national trends (Figure 12). In addition, businesses are also benefiting from incentives for alternative energy which displaces both current demand and future increases in energy use. Looking forward, most scenarios show commercial electrical delivery changes in a range of growing less than 10% over 25 years or reduced by more than 10% over the same time range due to increased efficiencies (AEO 2011, Figure 12).

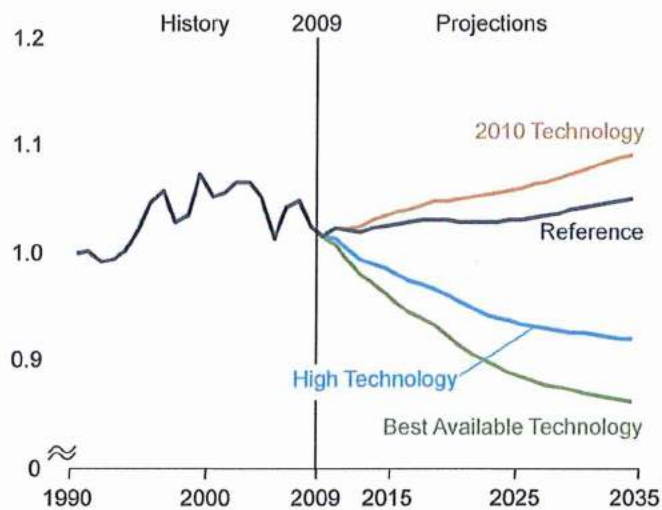


Figure 12. Commercial delivered energy consumption per capita in four cases, using 1990 as an index (1990 = 1), from AEO 2011.

Nevada trends differ from national trends where increasing energy uses follow trends in increasing population, home sizes and technology use exceeding efficiency improvements (Figure 13, from AEO 2011). These trends may not be as pronounced for the Yerington Paiute Tribe due to more uniform housing and greater potential benefit from weatherization programs. For example, there is expected to be more homes on the Reservation that would benefit from weatherization than average due to age and condition.

Nationally, residential power use is 57% of total electrical demand and will likely increase by 5 – 20% over the next 25 years. However, increased use of residential solar may result in a lower rise in demand (closer to 5%). Commercial and industrial power use is predicted to be in a range of 8% above current use with some predictions falling to 60% of current use. With the Tribe already directing new industry and potential housing toward single user alternative energy (i.e. onsite solar or small wind turbine), commercial use will likely be below current and expected levels. With residential use steady to slightly higher and commercial steady to moderately lower, the two combined may result in a consistent demand for existing homes and other buildings.

The U.S. Energy Information Administration Annual Energy Outlook AEO energy use modeling is contrary to California Energy Commission (CEC) predictions for PG&E, non-Bay Area consumers (Figure 14), a likely comparable model for Northern Nevada. It is recommended to report CEC modeling but use the AEO predictions since the CEC modeling is now more than 2 years old and also includes electric vehicles as significant consumers by 2014. Electric vehicles may become an important part of California's electric use but due to issues with range and cost, adoption in rural areas such as Yerington is expected to be slower.

In summary, changes in demand can be determined as a function of increased number of homes and industries and may not need to include a factor for increased per capita or equivalent use. Requiring new industry, commerce and housing to have single user alternative energy such as

solar panels or small wind turbines along with weatherization of older buildings may result in stable or decreasing demand, even in the long term, for the Tribe.

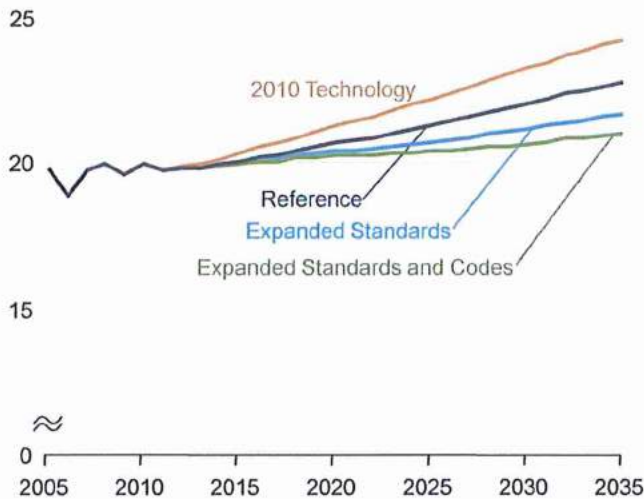


Figure 13. Residential and commercial delivered energy consumption in four cases in quadrillion Btu. Trends are for potential standards and codes that increase requirements for energy efficiency (AEO 2011).

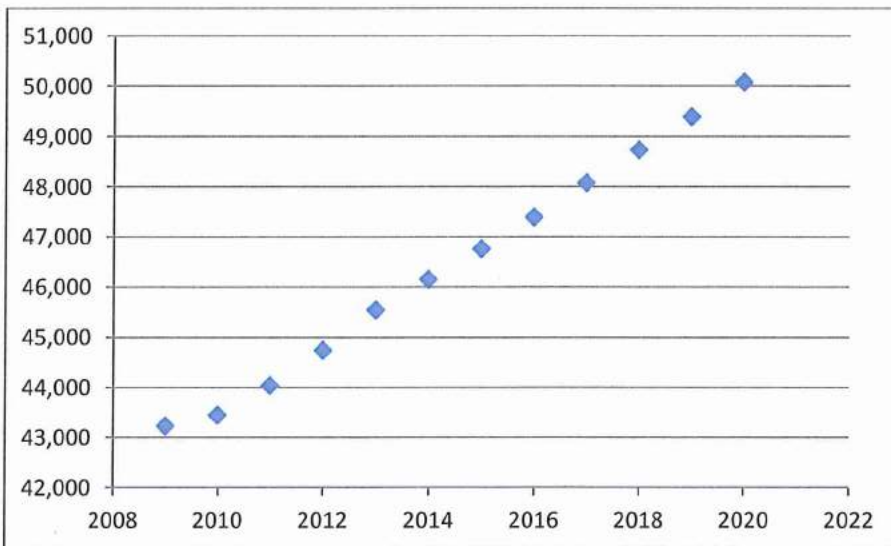


Figure 14. Energy use forecast for PG&E, non-Bay area users as predicted by CEC. The model assumes significant consumption for electric vehicles by 2014.

One important change that should be considered in energy planning is the role of alternative energy in replacing other energy sources. Natural gas is commonly used for heating along with

wood. The development of alternative energy that reduces or even just stabilizes costs for electricity may result in conversion to electric heating, hot water and cooking as older homes are maintained and propane appliances replaced. This could result in increases for per capita electrical use in newer homes that are all-electric but the source would be solar and not part of delivered electricity.

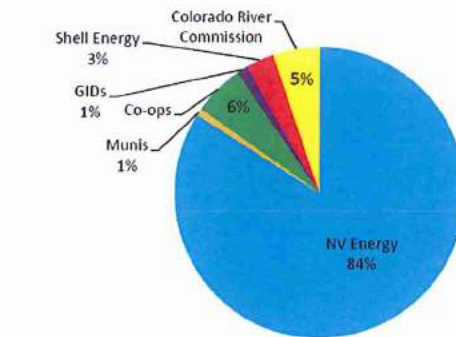
In summary, alternative energy sources that reduce or stabilize energy costs may need to account for increased demand. However, this increased demand may not occur immediately and will not be predictable from regional trends. It may be predictable through planned development and will result in demand decreasing with installation of solar panels and wind turbines, not a net increase compared to current demand.

2.4 Existing Energy Infrastructure

2.4.1 Electricity

NV Energy provides the majority of the state's electric energy (Figure 15). The next largest providers, rural electric cooperatives (co-ops), are vastly smaller than NV Energy. Providing slightly less power than co-ops, the Colorado River Commission of Nevada (CRC) services the Southern Nevada Water Authority and certain industrial companies in Clark County. Shell Energy North America (Shell Energy) supplies Barrick Mines (i.e., Goldstrike, Turquoise Ridge, and Cortez) with purchased power. Municipal utilities (munis) and general improvement districts (GIDs) provide the least amount of electric energy in the state of Nevada. This energy combination is somewhat unique and does directly affect Lyon County. With the most likely prospect of economic development being mining including mature projects such as the Nevada Copper Pumpkin Hollow project, energy use for the mine may not include local infrastructure similar to the Barrick Mines projects. The need for locally produced power for mining may also create economic opportunities for the Tribe.

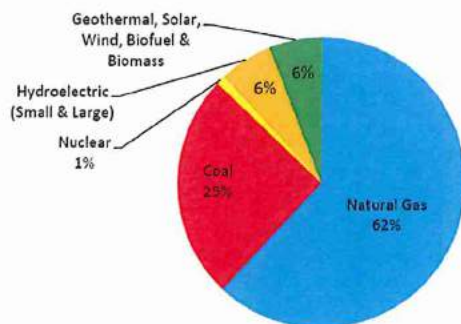
Provider	MWh
NV Energy (Sierra & Nevada Power)	28,344,926
Municipal Utilities	
Boulder City Electric Utility	167,000
Fallon Municipal Electric	85,521
Subtotal	252,521
Cooperatives	
Harney Electric	95,506
Mt. Wheeler Power	490,437
Wells Rural Electric Co.	781,251
Raft River Rural Electric	55,288
Plumas-Sierra Rural Electric	4,084
Valley Electric Association	484,866
Subtotal	1,911,432
GIDs	
Overton Power District #5	352,026
Lincoln County Power District ¹	80,874
Subtotal	432,900
Shell Energy of North America	1,064,933
Colorado River Commission of Nevada	1,766,029
TOTAL	33,772,741



Sources: NV Energy, Nevada Rural Electric Assoc., Fallon Municipal Electric, Valley Electric Assoc., Public Utilities Commission of Nevada, Colorado River Commission of Nevada

Figure 15. Energy consumption details by provider for Nevada (2011).

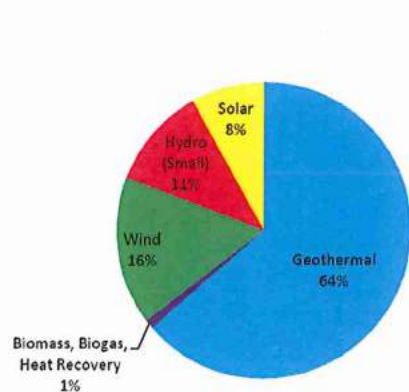
NV Energy cites Nevada's primary source of electric energy as coming from natural gas. Coal provides a little less than half the power natural gas does. Renewable and hydroelectric sources yield the same percent, though combined they still produce half the energy supplied by coal plants. A small fraction of Nevada's energy is nuclear derived and, similar to hydroelectric, is from out of state sources (Figure 16).



Sources: NV Energy, Public Utilities Commission of Nevada

Figure 16. Energy source profile for Nevada (2011).

Geothermal sources provide over half of Nevada's renewable energy. Wind, the next largest contributor, provides one quarter the energy of geothermal sources. Solar power follows small hydroelectric sources in amount of energy production. Biomass and biogas sources, including energy derived from waste heat, are not commonly utilized in the state of Nevada. The renewable energy chart displayed (Figure 17) does not compensate RPS carryover credits and credits from energy conservation.



Sources: NV Energy, Public Utilities Commission of Nevada

Figure 17. Renewable energy profile for Nevada (2011).

Transmission is a very typical issue for utility sized energy development on Tribal property. However, the Churchill Generating station and Wabuska Geothermal Facilities are located in Mason Valley (Figure 18 and Figure 19) and result in significant transmission in the area of the Reservation. This is unusual for such an area and although a transmission study is required for any substantial energy project, it is likely not a limiting factor for the Tribe.

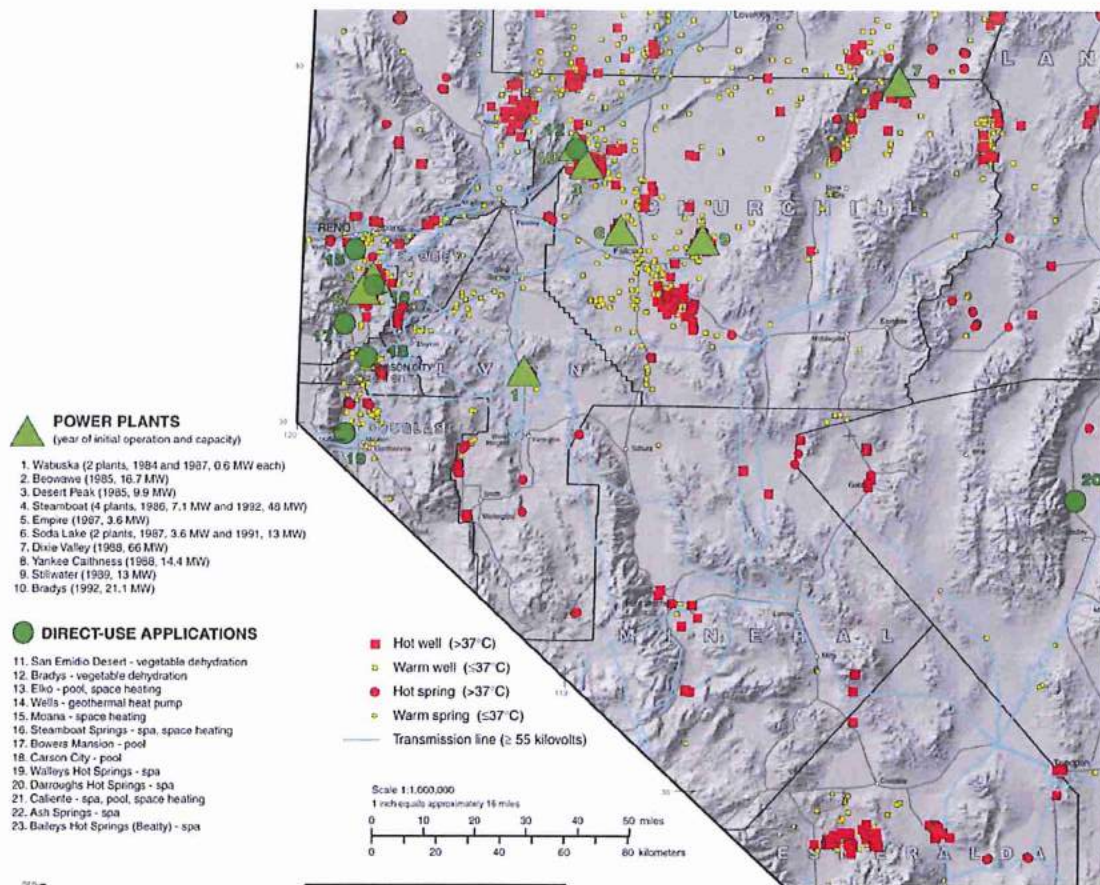


Figure 18. Geothermal facilities and transmission in Central Western Nevada. Note multiple transmission associated with Wabuska (green triangle 1) greater than 55 kv. These include lines adjacent to the Reservation.

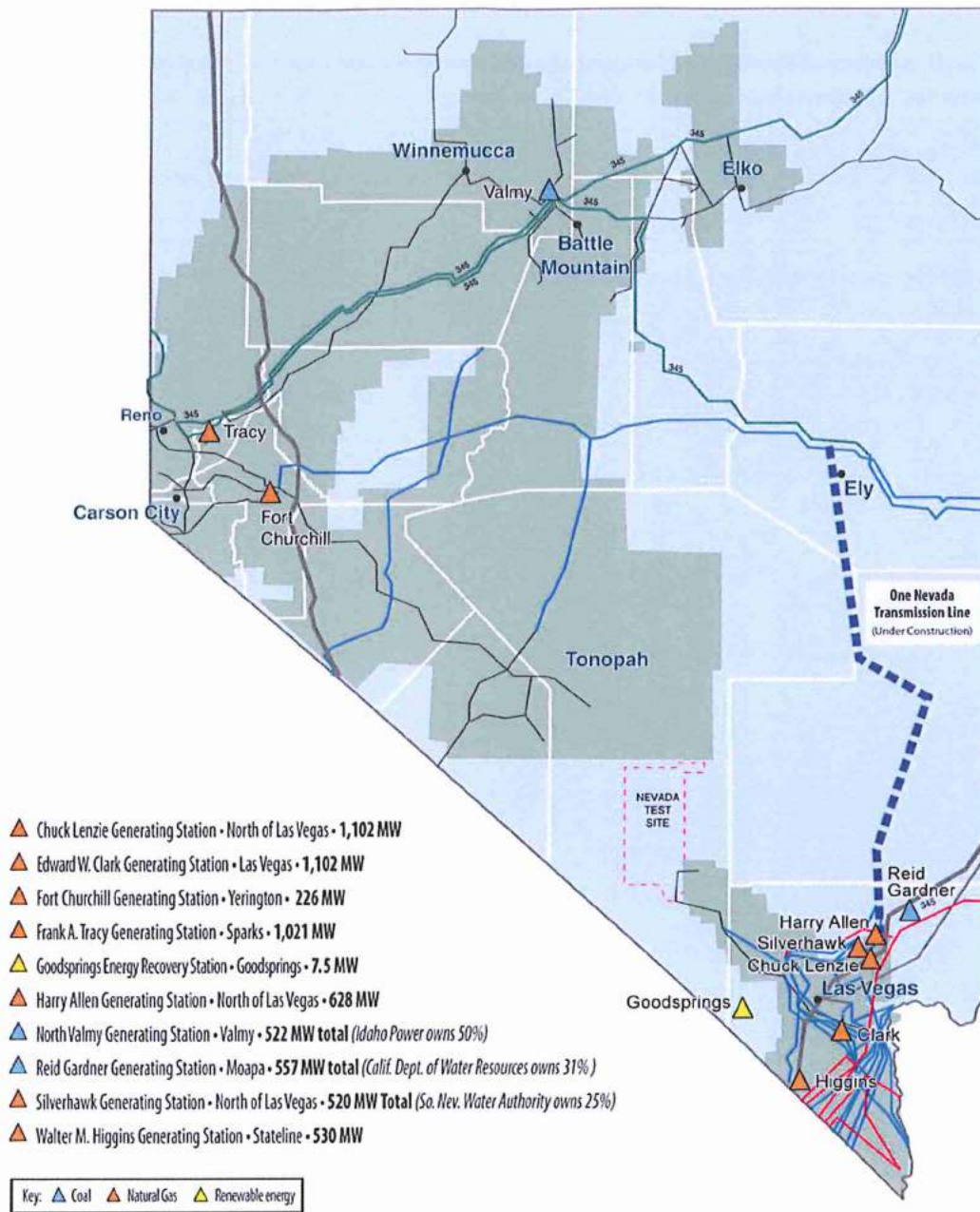


Figure 19. NV Energy generating stations showing principle transmission. The Fort Churchill Generating Station is in Mason Valley approximately 20 miles north of the YPT Reservation.

2.4.2 Natural Gas/propane

Although propane is common in rural Nevada, the reservation and colony are actually serviced with a natural gas pipeline via Southwest Gas Corporation (Figure 20). Although site surveys did find some homes using electric and wood (10%) for heating, most homes are using natural gas.

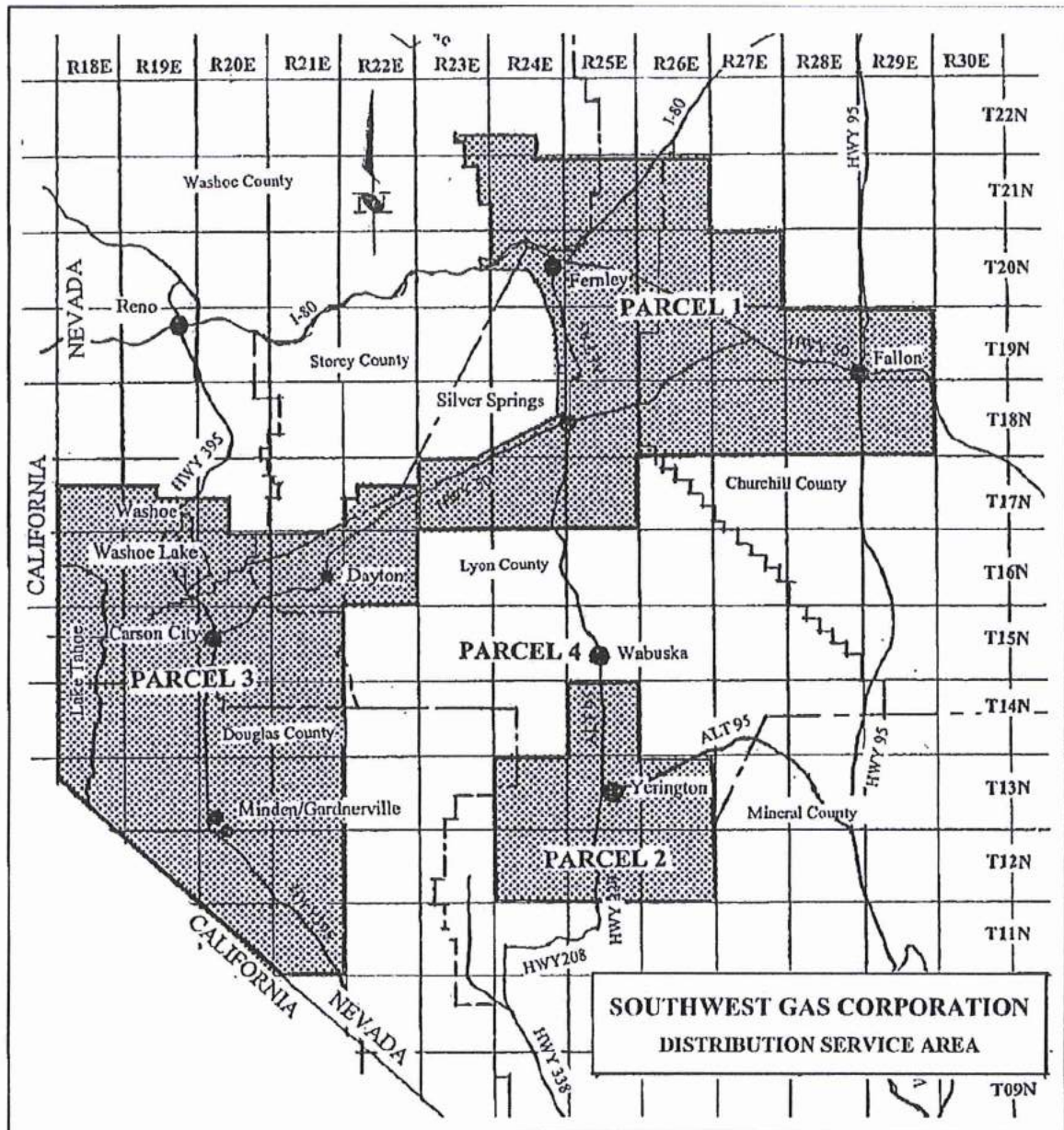


Figure 20. Southwest Gas Corporation distribution service area which includes the YPT Reservation and Colony.

3.0 Prioritized Options and Recommendations

A basic step in Strategic Energy Planning is compiling and prioritizing a list of reasonable energy options. The objective is to develop a comprehensive list although some options may require additional research. Other options that were found to be unrealistic or not compatible with the Tribe's interest are not included; the ones listed in the following sections were found to be reasonable and can be considered for prioritization and future evaluation. The following is not intended to be a feasibility study for any of the options. With the energy use data presented above, the summaries for each option provide basic information that can be used to proceed with decisions to start the development of these programs. The actual order they are addressed may also be affected by the scope of the specific project, available funds and amount of additional infrastructure required.

3.1 Improved weatherization

As with most residential buildings, modernization or even just improved maintenance can have the fastest return on energy savings. Often, Tribal housing is found to be built to minimal standards, with maintenance that does not address energy efficiency. In many cases, heating, cooling, and lighting are provided for minimal installation and equipment cost, not minimal operational cost.

Using the Pacific Gas & Electric calculator for a typical home on the Reservation, estimates were made on changes that could be made by homeowners. As indicated in Table 1 below, the changes would reduce electric costs by approximately 14% or up to \$20 per month.

A first phase project to meet the requirements for Table 1 for the typical home on the Reservation would cost a total of \$160 for equipment. The program should also include support for elders, expecting 10-25% of households to require assistance of approximately 2 hours per home that can be provided by volunteers or Tribal Staff with minimal training. In general, the cost for equipment could be realized in energy savings within 9 months. It should also be noted that many of the improvements are applicable even to newer housing that may be built to better weatherization standards but may not be completed with these features or may have been modified by the homeowner.

Other weatherization projects would include caulking windows, sealing leaks in ducts and other air leakage issues that can vary from home to home. Some homes may also require additional insulation and may benefit from programmable thermostats. These additional actions could increase the savings shown for first phase measures in Table 3 by a factor of 2.5.

For these measures to be assessed, home inspections are required. At a minimum, these inspections should identify:

- Homes that require programmable thermostats
- Homes that require additional insulation of/with recommended amounts and measures
- Recommendations for windows and doors
- One or two attic fan designs and homes that can benefit from their installation

The inspections should result in home by home reports as well as general planning data.

Table 1. Recommended first level conservation measures for Tribal housing

Action	Costs	Provider	Savings per year
Install more efficient lighting			
Replace all lighting with compact fluorescents	\$35	Home owner installs new bulbs (some assistance to elders)	\$102-124
Replace halogen torchieres*	\$70	Home owner	\$27-33
Improve water use			
Replace shower with low-flow	\$35 (1.6gpm unit)	Home owner installs new fixtures (some assistance to elders), about 30 minutes	\$49-81
Insulate water heater	\$20	Home owner installs new unit (some assistance to elders)	\$11-19
Total	\$160		189-257

*Assuming two per home with a replacement cost of \$35/unit

The Tribe also has the opportunity to develop building standards and design recommendations for housing that meet or exceed local standards. The lack of more advanced standards often creates a need for weatherization for nearly all Tribal homes.

3.2 Residential Solar

The cost of residential photovoltaic (PV) systems can be significantly higher than the cost of utility or commercial scale PV systems. Its performance is also variable due to maintenance and location issues. Despite these facts, residential PV systems often provide some of the most recognized benefits by directly reducing Tribal member's expenses. In addition, it does increase the value of the homes and often challenges homeowners to become more energy conscious, further increasing the system's value.

The value of residential solar can be high because it replaces electricity bought at one of the highest retail rates; currently over 16 cents per kWh (Figure 9). Information from Tribal members indicates actual billing, including fees and taxes, resulting in rates as high as 21 cents per kWh. This pricing factor will only increase with smart metering and tiered rates because electricity generated from PV systems is nearly optimal (cold sunny days are the optimal) during the most expensive peak power use hours; warm summer afternoons.



Figure 21. A roof mounted solar array providing electricity to a Tribal home in Lake County, California. In this case, the array is servicing two homes providing a significant savings for installation.



Figure 22. A ground mounted solar array providing electricity to a Tribal home in Lake County, California. The ground mounted system was used due to poor roof orientation and ease of reconnection to a possible future replacement structure.

There are building codes but no standard designs for residential solar. The typical PV system is roof mounted (Figure 21) with stationary, ground mounting not unusual (Figure 22). Ground mounted systems are slightly more expensive and typically used when roof orientation is not

optimal for solar (lack of south facing surfaces) or the condition of the home is poor. Ground mounted systems can also be used when the home is expected to undergo significant renovation, including replacement of modular or trailer homes, since ground mounted systems can be disconnected and reattached to new structures with less expense than roof mounted systems.

Different sizes and types of PV systems result in different prices. There are no publically available estimates of residential solar for Tribal homes, but two Tribes, Habematolel Pomo of Upper Lake and the Scotts Valley Band of Pomo Indians, have installed PV systems on all of their Tribal homes in the last year (Table 2).

Table 2. Range and average cost for residential PV systems for Tribal homes. Table includes costs for two Tribes in California, installation 2010-2011. Design was to meet average power use based on 12 previous months.

Tribe	Average cost	Maximum Cost	Minimal Cost
A	36,142	41,581	21,980
B	41,337	85,146	11,553

The systems were funded through the California Solar Initiative (CSI) Single Family Affordable Homes (SASH) program. They would be expected to be larger than typical for the homes installed due to the likely failure of the SASH program and their contractor, GRID alternatives, to implement required weatherization. Based on typical Tribal homes between 1200 and 1400 square feet, systems over \$32,000 should not be common. Black Rock Solar, which has installed all of the solar energy systems on the Reservation, has estimated that YPT tribal housing would require 4 kw systems on average costing \$20,000 or less.

Electricity generated by solar panels on homes is usually not sold back to the utility. The typical arrangement is net metering providing a direct trade-off for the power produced by solar panels and electricity utilized in non-operating (nighttime) conditions. This creates an incentive to size solar systems to slightly less than total electricity use; additional generation has no benefit to the system owner.

In conclusion, residential solar is expected to be a component for the Yerington Paiute Tribe energy program. Despite limits on PV performance due to weather, terrain and shading, the replacement of peak retail power and frequent interest by homeowners makes solar an easier choice.

3.3 Biomass

Biomass as an energy source includes a variety of fuels including wood, municipal solid waste and agricultural byproducts. Approximately 4% of the energy used in the United States is from biomass with the largest portion, 46%, coming from wood and wood derived biomass. Although generating electricity from wood is not a new technology, the current generation of cogeneration technology started in 1984 with the 50MW Burlington Electric Facility in Vermont. Production of electricity from wood has been relatively constant since 2005 at 29 million kWh per day nationally (U.S. EIA 2011). As early as 1996, 3,072 million kWh were produced from wood waste products in California. Annual growth is expected to be approximately 5.3% (AEO 2011).

The Yerington Paiute Tribe would not benefit from a local forest product industry; however, there is local agriculture producing biomass. In this case, a large local dairy providing products for methane related power generation could be supplemented by local bio solids management issues.

In summary, the development of a bio solids based energy program at YPT remains undeveloped. Several factors remain unresolved:

- 1) Air quality: Air quality is always an issue with energy from biomass. Large scale energy production from bio solids has progressed but might result in a facility that cannot operate during inversions and other events that create additional air quality challenges.
- 2) Fuel management: There is a significant quantity of biomass available in the immediate area. However, for a biomass facility, improved estimates and descriptions of amount, delivery and transportation are required to properly size the facility.

3.4 Utility Size Solar

With commercial sized solar already on the Reservation, the next logical step is utility size programs. Examples that are of interest include other utility programs providing power to mining efforts in Nevada. This will require further assessment of available property and transmission along with developing an appropriate customer base.

Historically, California utilities have provided the best compensation for this type of power and YPT is in a position to deliver power across state lines. However the trend of out of state providers for California utility companies may be at an end. With recent state government efforts and NV energy offering neither opportunity nor reasonable compensation, a direct purchaser locally is likely the most reasonable effort.

3.5 Energy Policy; Building Standards to Improve Efficiency and Energy Options for New Homes

As indicated with the LEED initiative at BIA (BIA 2008), the need to improve building standards in Indian County is well known. Often, Tribal homes do not benefit from the most recent energy conservation methods and residential alternative energy is rarely found.

The role of building and appliance standards in energy conservation is pronounced. Summary statistics, including predictions, are available from CEC for the PG&E service area and are shown in Figure 23. Examples of improved building standards would include improved windows and doors as well as better insulation. An example of improved appliances would entail a requirement of energy star compliant devices.

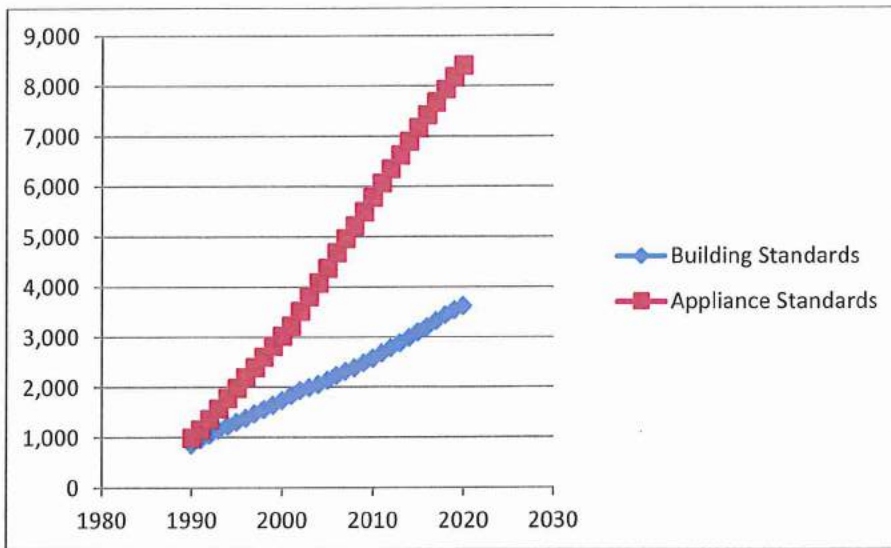


Figure 23. CEC (2011c) calculations of Electrical/Conservation savings created by building standards for the PG&E service area. Units are in GWh.

Tribe specific building standard examples in Indian Country are not forthcoming for this study and are likely rare if available at all. Leadership in this area is critically needed. However, it is recommended to seek these standards among successful community examples that include an effort to reduce both energy use and the associated financial strain on individual households while addressing local and specific requirements.

3.6 Residential Wind Power

The potential for wind resources are known for the area (Figure 3). Small residential units such as the Whisper or smaller Mariah series units can provide power to homes with less tree removal and issues with terrain than solar power. The data provided in Figure 3 is for commercial units,

residential units will be lower than 50 meters. For the smaller residential wind turbines, data may be available from one of the two meteorological stations.

In conclusion, adequate data exist to justify further analysis of the valley floor anemometer data. Depending on those results and the availability of funding, residential wind projects can be further explored.

3.7 Commercial Wind Power

Commercial wind is one of the most cost effective methods of generating electricity found in CEC studies. Its track record with Tribes in the Midwest indicate profitability if managed well and transmission issues are not prohibitive.

Development of wind energy would require additional study to assess potential and scope systems. This would include installation of anemometers at specific elevations higher than those observed during site visits. The DOE Native American anemometer loan program will provide the equipment at no cost to the Tribe with the Tribe bearing minimal cost for installation and data compilation. This would be the key activity for any feasibility study.

Other issues associated with wind energy include public perception including bird death issues, aesthetics and noise. However, if transmission systems allow, ridge top turbines can be placed outside of a visual and noise range. These modern wind turbines have lower tip speeds avoiding bird death issues.

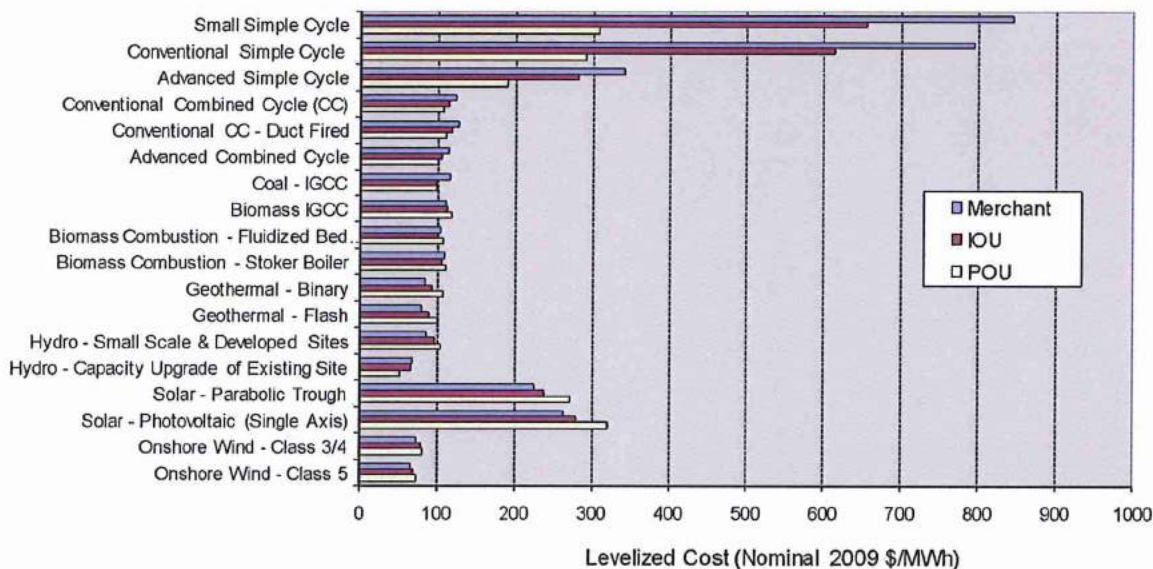


Figure 24. Average levelized (corrected for transmission and other site specific factors) costs for energy production based on 2009 costs. Merchant is enterprise produced power, IOU is independently owned utility and POU is publically owned utility.

3.8 Biodiesel

The Tribe consumes some diesel for its own heavy equipment needs and potentially, Tribal vehicles. These fuel needs could be subsidized with onsite development of biodiesel. This is a minor component of the energy program, but with the ease of use and low cost of equipment compared to current costs for fuel, it represents the true low hanging fruit for many energy programs.

This would most likely be effective as a small scale venture. The effort would be in using raw material from the local food services and providing fuel for Tribal vehicles or sale directly to Tribal members and other local residents. The program would require commitments from local restaurants and estimates of quantities available. Additionally, disposal of waste products would have to be arranged along with facility sighting, training and materials storage.

4.0 Demographics

The Yerington Paiute Tribe (YPT) is located in Lyon County, Nevada near the town of Yerington. The Tribal properties include the YPT Colony adjacent to the town of Yerington and the Campbell Ranch located northwest of Yerington.

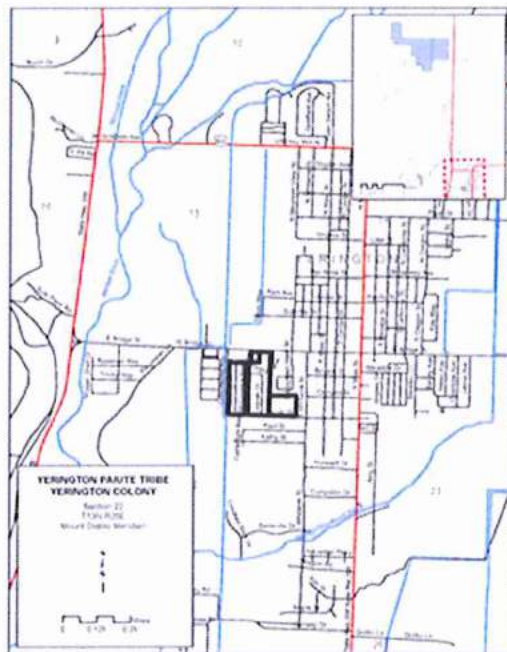


Figure 25. Map of Yerington Indian Colony.

The Yerington Indian Colony was purchased in 1917 for \$1,025.64. The Colony was a 9,456 acre tract of land which was the result of an Act of Congress passed May 18, 1916. The land was purchased from the Frank Bovard family estate. The Colony was established for a variety of

reasons. A group of Tribal members had been living on property leased by the Bovard Family and they were being displaced. The second reason came about a year later, the government was making plans to open an institution designed to board Indian women and girls that did not attend school. While the institution would not educate the tribal members, they would learn how to read. A year later the permanent ten acre plot was acquired for the Tribe. The Colony for the first few years after its purchase was a fenced and gated compound which was locked nightly. The dwellings were either one or two bedroom and most of these early dwellings lacked floors. The dwellings were heated by wood stoves and water was drawn from either the irrigation ditch (from which the Tribe owned a half acre of water rights) at one end of the Colony or from two pumps the federal government had installed. Up until the 1940's conditions remained much the same. In 1941, other houses were built and equipped with oil heat. Electricity was not installed until the 1950's. Today the Colony has 175 Colony members with houses built within the last 40 years. There are some tribal services on the colony such as the tribal environmental program and tribal police station and a smoke shop. (Michael Hittman, 1984)

The Campbell Ranch Reservation is home to 400 Tribal members. The acquisition of the Ranch was given under the Indian Reorganization Act of 1934. Although the permission was granted to purchase on June 18, 1934, the final authority to purchase was delayed until December 10, 1936.

The price for the acquisition was \$25,000. There were 805.21 acre feet of water apportioned for storage in the Campbell Irrigation Ditch Co. as well as 1040 shares of stock in the Campbell Canal company. An additional 120 acres of pasture land was added in 1941. The land was purchased with the intent of parceling out assignments to individuals for ranching and farming. (Hittman, 1984)

Today the Campbell Ranch Reservation is utilized for housing and governmental entities; such as administration, utilities, the housing authority, USDA Commodities program, the clinic, social services, and the community center. There is Arrowhead Ranch, a 480 acre alfalfa ranch, a convenience store and gas station.

There are 1200 enrolled members of the Tribe with 575 residing on the reservation and the colony. The land base of the Tribe is approximately 1,653 acres.

4.1 Soils

According to the Natural Resource Conservation District (NRCS), soils in and near the reservation are deep, moderately well-drained soils typical of those found in mixed alluvium. The soil series consist of mainly Dithod loam, East Fork clay loam, Dia loam, and Sagouspe sandy loam. They vary mainly in degree of acidity /alkalinity. Dithod loams are ph neutral; East Fork clay loams are moderate to strongly alkaline; Dia loams are neutral to strongly alkaline; and Sagouspe loams are moderate to strongly alkaline. (NRCS 2008; 2009; 2009a; 2009b)

4.2 Climate

Yerington is located in a high desert climate characterized by an arid climate with annual average rainfall of 5.3 inches. The range of monthly average temperatures is in the low 30's in December to mid-70's in July. Sporadic thunderstorms may occur throughout the year and past

storms have resulted in rain events of up to 2 inches in a single day (WRCC, 2007b). The lowest rainfall occurs between July and September (WRCC 2007a) with most precipitation occurring as winter snowfall.

The Tribal meteorological station data indicates significant channeling of wind in two main directions: up-valley (wind direction from south through southwest) and down-valley (wind direction from north through northeast). During March there is similar distribution of wind direction: up-valley from south through southeast through west and down-valley from north to northeast. During April, the winds turn more from the west: up-valley from southwest to west-northwest and down-valley from north-northwest through northeast. (Wright, 2012)

4.3 Agriculture

The town of Yerington and the tribal land base are all within the Mason Valley. Mason Valley is predominantly an agricultural community and together with Smith Valley (both in Lyon County) generates approximately \$58 million in revenue from crop production covering over 50,000 acres. (28% of all the land in the valleys)

Alfalfa is, by far, the most dominant crop in both the amount of acres and the amount of revenue. Significant impacts to the alfalfa fields would have immediate effects on the agriculture industry as a whole in Mason and Smith Valleys due to the sheer size of its production.

Turf, lettuce, grapes, onions, and garlic are estimated to be the most valuable crops on a per acre basis, but they only represents 6% of all crop acres in Mason and Smith Valleys.

4.4 Lyon County Demographics

4.4.1 Land Base and Population

Lyon County is located in western Nevada. Lyon County has 2,001.19 square miles of land area and 23.01 square miles of water area. As of 2010, the total Lyon County population is 51,980, which has grown 50.66% since 2000. The population growth rate is much higher than the state average rate of 35.15% and is much higher than the national average rate of 9.71%. Mason Valley, home of the Lyon County seat in Yerington, contains 8,583 persons as of 2007, or 45% of all residents in the basin (Figure 1). At 183 square miles, Mason Valley contains 47 persons per square mile. Mason Valley, the most populated region of the basin, only added 913 persons between 2000 and 2007, with an annual population growth rate of 1.46% for that period. As of 2012, Yerington's population is 3,048 people. Since 2000, it has had a population growth of 0.03 percent.



Figure 26. Location of Lyon County Nevada

4.4.2 Income and Growth Rate

Lyon County median household income was \$48,433 in 2006-2010 and has grown by 19.00% since 2000. The income growth rate is higher than the state average rate of 14.40% and is about the same as the national average rate of 19.17%. Compared to the rest of the country, Yerington's cost of living is 12.30% . This is lower than the U.S. average.

Population Density

The Lyon County population density is 25.68 people per square mile, which is about the same as the state average density of 24.42 people per square mile and is much lower than the national average density of 81.32 people per square mile.

4.4.3 Median House Value

Lyon County median house value is \$185,000 in 2006-2010 and has grown by 55.20% since 2000. The median value of a house in Yerington is \$90,600. Home appreciation the last year has been 1.78 percent. The house value growth rate is much higher than the state average rate of 23.10% and is higher than the national average rate of 50.42%. As a reference, the national Consumer Price Index (CPI) inflation rate for the same period is 26.63%.

4.4.4 Age

The median age of Mason Valley is 41.4. In Mason Valley the highest percent are 10 to 14 years of age. 7.1% of the population. In Mason Valley 26% of the population is under the age of 18.

4.4.5 Education

On average, the public school district that covers Lyon County is much better than the state average in quality. The average Lyon County education level is lower than the state average and is lower than the national average.

4.4.6 Race

The most prevalent race in Lyon County is white, which represent 84.96% of the total population, while Native Americans make up 2.72% of the population. (Lyon County Fact Sheet)

5.0 Cultural Analysis

"Once upon a time, a long, Jong time ago, here in the land of the Numu everything was peaceful. The Numu lived with Mother Earth, giving and sharing. They believed that when something was taken from Mother Earth, something should be left in return. A prayer would be given and a blanket or moccasins or basket left where the food or water was taken. This is the way the Traditional Numu believed."

Numu Ya Dua



The Yerington Paiute referred to themselves as "Numu" which means Human Being. Others have referred to Numu in a number of ways. They have been called the "Tabboose-Dakadu" or 'Grass Nut-Eaters' referring to a native plant found in the high desert regions of both the Smith and Mason Valleys. Non-natives have called them Yerington and Smith Valley Paiutes in order to geographically place them in the western Nevada region these people currently inhabit.

"Each label generally fails to adequately describe the ancestors of the Numu now called the Yerington Paiute Tribe. No one foodstuff gathered, geographic location or Anglo misnomer fully describes the migratory, nature-harmonious culture of the traditional Numu. To the rapacious settler headed West to find fortune, Numu culture seemed but a hand-to-mouth existence in the barren, high deserts of Western Nevada. Upon closer inspection, the so-called "survival culture" of the Numu is an expression of an intricate, balanced way of life." (Hittman, 1984)



Figure 27. Traditional Paiute names.

Traditional Numu Social Unit: The Outfit

The Numu lived in small groups that consisted of primarily family members. They were nomadic as the land that they lived on only provided sparse food. Scholars have debated if traditional Numu lived in small, independent families or bands. The Numu lived in bands only after the non-native moved into the area.

“As proof of this contention, the oldest Numu interviewed as part of this history recall themselves and their ancestors being born at locations other than Smith or Mason Valleys. Big Mack, for example, was born at Walker Lake. His mother was also from the Walker Lake area. Tom Mitchell was born in Aurora. Hazel Quinn's maternal grandmother was born near Dayton. Her father, Blind Bob Roberts, was born in Bridgeport. George "Goggles" Wright, an invaluable informant to anthropologist Omer Stewart, said his father was an "Agai-Dakadu" or 'Trout-Eater' from Walker River and his mother was a "Wada-Dakadu" from Honey Lake, California. Andy Dick's father was from the Walker River Reservation and his mother and maternal grandparents from the Sweetwater/ Bridgeport area. Andy Dick's paternal grandparents were from Fallon. Since food was sparse and difficult to find, Numu never had the luxury of remaining in any one place for very long. They moved in search of foods available during different seasons and as far and as fast as their ages and emotional attachments to particular places would permit. The "Tabboose-Dakadu" then were any Numu who happened to be living in Smith or Mason Valleys for a relative length of time. To say a Californian is a Nevadan because he visits Nevada for a short period of time is equal misconception. A Californian or a Nevadan, though, both refer to them-selves as Americans in much the same way the "Tabboose-Dakadu" or the "Agai-Dakadu" considered themselves Numu, Northern Paiutes, Human Beings.

The best way to describe the traditional Numu social unit is to use a common expression of Yerington Paiute Tribal members, "outfit". The "outfit" is an extended family. Extension occurs both vertically across generations or horizontally among siblings: A Numu lives with his/her parents, who in turn live with one set of their parents or a pair of brothers or sisters continue to reside together as adults with their wives or husbands and their respective children. In some cases, both extensions exist simultaneously. An "outfit" can also refer to a polygamous unit where a Numu man marries more than one woman.” (Hittman, 1984)

Traditional Numu believed that whatever was taken from the earth required some form of payment in kind or reimbursement. For example, a Numu hunter must thank the animal he has killed and carefully bury the animal's gall bladder. Living in harmony with Mother Earth also meant the Numu must be highly sensitive to seasonal changes and the cyclical patterns of nature.

The migratory lifestyle of the traditional Numu was dictated by these changes and patterns:

FALL. The season the Numu called "Yubano" was the most important time of food gathering. During this period of the year foods were gathered that would sustain the Numu throughout the long winter. Three of these important foods were obtained then: pine nuts, deer and jackrabbit.

Preparation for harvest of the pine nuts began in early summer. At that time a Numu Elder traveled to the mountains to examine the progress of the pinyon-pine seeds and to pray for their continued ripening. Prayers were also offered for moisture to insure a large crop of pine nuts to carry the Numu through the winter.

As the fall approached, Numu families would migrate toward the Sweetwater Mountains or Desert Creek or wherever a large quantity of pine nuts could be harvested. Upon arrival, a leader would call the families together to circle dance. This is the Pine Nut Festival or fandango called the "tubanuga".

All night long, Numu men, women and young adults would take hands and perform the clockwise, shuffle step around a blazing sagebrush fire. Outside the circle, the "powenabe" or 'good talker' would pray for a rich and bountiful harvest. In holding hands, the Numu expressed their unity as a people. Many had not seen each other since the last "tubanuga" and so friendships were renewed.

Today, the procedure is reversed with the Pine Nut Festival held after the harvest at the Walker River Paiute Reservation.

After resting the following day, the traditional Numu would stake out family territories for pine nut harvesting. Weather permitting, the Numu would remain in the mountains for four to six weeks during September and October harvesting the pine nuts or "tuba". The nuts were gathered by climbing trees or using a stick to knock the pine cones to the ground. A canvas is placed in a carved out hole in the ground where others seated would knock the cones. Then with smaller, firmer sticks, seated Numu would beat the seeds from the cones. Later in the day, when the wind began to blow, Numu women would toss the "tuba" in curved winnowing baskets so that North Wind might separate the good from the bad seeds. Roasting of the pine nuts followed.

Numu still are taught never to tease the winds. Numu were taught early in life never to whistle for the wind while preparing pine nuts. North Wind might perceive this as a challenge and bring fierce storms, scattering the piles of gathered pine nuts.

Rabbit drives were also conducted in the fall. During October and November jackrabbits were fat and plentiful following their feast of summer grasses. Again, a "powenabe" would lead the affairs of the rabbit drive.

Before sun-up, the "powenabe" started a fire and woke up everyone who was to participate with loud calls. Then he would pray for a successful drive. Also called the Rabbit Boss, the "powenabe" would tell the participants where the drive would begin and end and which area each individual was to cover. served as Rabbit Bosses. These individuals were respected for their knowledge of the ways of the jackrabbit as well as their organizational and leadership skills.

In Mason Valley, rabbit drives sometimes began at McCloud Hill and moved northward to Campbell Ranch. At other times, they began at Campbell Ranch and ended west of Wabuska. Another common place for rabbit drives was old Fort Churchill near Weeks. In Smith Valley, the drives were held towards the south end where Desert Creek runs into the valley.

During the rabbit drive, dozens of Numu outfits cooperated as they set their nets in a wide V across the face of Smith or Mason Valley. On the signal from the Rabbit Boss, those participating would walk noisily toward their nets, beating the sagebrush where the sleeping jackrabbits were hidden. At the other end, near the nets, more outfit members stood poised with clubs to beat the rabbits to death. In later years, clubs were replaced by shotguns and the buck-board wagons that carried outfit members to the drives by Model T Fords.

After the drive, the jackrabbits were skinned. Their hides were cut into strips, tied together and then twirled around a stick until cured. Numu men then wove rabbit skin blankets which kept their families warm on cold winter nights and served as cloaks during the day. The blankets were woven on looms on which the strips were strung horizontally or vertically.



Another food gathered during the fall was "tabboose", a grass nut plant which grew along the Walker River. The edible part resembled miniature coconuts which contained a tiny amount of white liquid within their hairy shell. Numu would dig them up with sticks, dry them in the sun and grind them. The "tabboose" could be eaten plain or mixed with other seeds. The sticky "tabboose" had to be washed down with water when eaten to prevent it from clinging to the roof of one's mouth.

Mud hens were also hunted in the fall during their molting season when they were unable to fly. They were usually found on the lake at the northern part of Smith Valley. This hunt involved the construction of tule boats which were used to drive the mud hens to shore where they were easily killed. Then they were boiled and eaten. In Mason Valley, mud hens were found near Wabuska; in Smith Valley, on the lake near Colony District.

Other foods harvested in the fall included "hungu", a root which grows high in the Sweetwater Mountains; "paku" or sunflower seeds; and "payabba", another root extracted from the sloughs and eaten raw or cooked in its skin. A complete list of the foods the Numu consumed would fill a book itself. As harsh and forbidding a place the Great Basin was, the Smith and Mason Valley Numu nevertheless discovered many nutritious foods, enabling them to endure the long and sometimes bitterly cold winters.

WINTER. The season the Numu called "Tommo" was generally a period of hibernation when the Numu survived on the bounty of foods gathered during the fall. However, deer, jackrabbits and other game were frequently hunted. Fish such as minnows and small trout were also obtained through cracks in the icy streams. March was sagehen season. Fattened over the winter, the sagehen were a welcome form of fresh meat.

While food gathering was simply necessary for survival, a Numu had to learn a vast array of etiquette or manners in procuring and preparing any single item. "Hungu", for example, was a bears' food. Therefore the gatherer was taught never to playfully growl like a bear while collecting "Hungu", lest their unwelcomed attention be summoned. Hunters shouldn't eat the heart of animals. The hunter's own heart beat will quicken as a result and cause him to fall down or miss while taking aim of his next kill. Elderly Numu, on the other hand, were admonished to eat heart meat; their hearts would then be strengthened. Hunters were also instructed to avoid the kidney meat of a deer because it would cause your fingers to slip off the bow or arrow.

These and other types of restrictions upon an individual's behavior also demonstrated the importance and sacredness the traditional Numu attached to the quest for food and subsequently for life itself.

SPRING. With winter stores rapidly depleting, the time of "Tamano" or spring brought promise of fresh and different types of foods. Ripening plants and game would be gathered. Increasingly, though, the Numu's attention turned to fishing. Many Smith and Mason Valley Numu would travel to Walker Lake in May where they would remain on into the summer, engaged in fishing and fishing ceremony.

SUMMER. During the warm months of "Taza", the Numu were able to live off the "fat of the land". Fish, game and edible plants were readily available and eaten fresh. However, the Numu did not forget during the times of plenty to be mindful of storing some of summer's abundance for the harsher months which would soon return.

Among the foods gathered for storage included buckberries or "weapooe", a small red berry which was sweet and juicy. Large mats of woven reeds or skins were propped up like a saucer beneath the buckberry bushes. A division of labor was employed by the outfit in gathering this food. The men, being taller; used long crooked sticks to break the branches which were piled on the mat. Women and children would pick them up and hit the branches with smaller sticks, knocking the small red berries onto the mat. When they had gathered all they could hope to carry, a prayer or blessing was offered and some item was left behind for a future plentiful harvest.

The Numu then took the berries to the river to be cleaned of leaves and other debris which had fallen on the mat with the berries. The buckberries were placed in winnowing baskets and set in water in order to complete the cleaning process. The operation was repeated several times. Most of the berries were set aside to dry for two to three weeks. The dried berries were lighter and took up less space.

Later, when the season turned cold, the Numu would eat the buckberry in its dry state or prepare the dried berries into a pudding mix. The dried berries would first be soaked. Restored to their former shape and size, they were cooked, cooled, mashed, and run through a sieve until only the seeds remained. The meat of the berries was then mixed with pine nut flour or broth in equal parts and eaten cold. This treat is still enjoyed today by Smith and Mason Valley Numu.

Traditional Numu Supernatural Beliefs: The Concept of "Booha" (Power)

Smith and Mason Valley Numu believed that the universe was charged with power or "booha". Power could be used for good or for evil purposes. Certain individuals were acknowledged to be capable of tapping and harnessing "booha".

One type of "booha" exercised was in weather control. For example, Jack Wilson, the 1890 Ghost Dance prophet, was given five songs during a mystical revelation. With these, it is said, he could create or clear up unusual weather conditions. Wovoka, however, was not the only Numu to possess such powers.

MEDICINE MEN. Individuals who commonly exhibited power were called medicine men or "puhagamu" in Northern Paiute. A list of these "puhaguma" or healers were gathered from Yerington Paiute Tribal members. While not all of them were born in Smith or Mason Valleys, these "puhagamu" lived temporarily or permanently in one of the valleys or successfully doctored a member of a Numu outfit.

One of the most famous "puhagamu" was Wovoka. He grew up in the period of time when the settlers were taking over the lands of the Northern Paiute. In 1887 and in 1889, he had visions which he revealed to other Paiute people. Wovoka told them he had been to the land of the dead and returned with a message and songs from the Great Spirit. He told them that the Paiute people must dance and soon all the problems they were having would be "swept away by a great flood." He said dead Indians and relatives would come alive again and the Indian people would soon become strong and live on the earth free from the whites.

Before long the Ghost Dance had spread to more than thirty different tribes that thought Wovoka's dreams would come true. The dance spread through the Great Plains area. The Sioux Indians name it the Ghost Dance. Frightened white officials called in soldiers to stop the spread of the dance before trouble started. In 1890, Wovoka's teachings were shattered when the U.S. Army captured a group of Sioux Ghost Dancers.

Problems arose and the U.S. Army and Indians were involved in a great fight known as the Wounded Knee Massacre. Three hundred Sioux men, women, and children were killed by soldiers who were afraid of the Indians and the Ghost Dance.

As stated previously, different plants and animals were thought to be charged with "booha" and the "puhagamu" was said to be able to control that power for good or evil. In several instances, Tom Mitchell was able to doctor individuals who had eaten wild parsnip or "haginopa". Ordinarily, wild parsnips are so toxic, that they are fatal to anyone excepting the medicine man who eats them. Indeed, they have been used to commit suicide.

Wovoka or Jack Wilson became the best known "puhagamu". Much of his influence, which spread beyond Mason and Smith Valleys.

OBTAINING "BOOHA".

Where did Medicine men obtain the power to cure and doctor the Numu? Ordinarily, it was secured in caves. These caves were in the mountains north of Wabuska. The white patches on those mountains, that's where they went. You could be a "puhaguma" there. You could also get handgame "booha". If the "puhagamu" didn't use it right, then his "booha" will kill him! Medicine men and women who received their "booha" in caves fasted during what is called a "vision quest".

Since the Numu believed all sickness or misfortune was caused by the "witching way" of another, they hired "puhagamu" not only to cure them but to find out who had caused their illness or misfortune. In identifying the "culprit", the "puhagamu" themselves became sources of tension and subject to suspicion themselves.

Numu children were taught to respect the "booha" of the "puhagamu". They were never to steal their personal possessions since they might have stolen the medicine man's "booha" and, unwittingly, set it loose in the world.

In order to maintain the balance in nature, Smith Valley Numu who sought healing at a certain rock located there, would leave beads, blankets or money at the spot. Above all else, the power possessed by the Numu healers was dangerous to the healer. Any violation of the strict rules surrounding the use of "booha" would result in certain death:

Besides medicine men and women and suspected witches (not necessarily "puhagamu"), the dead were dangerous. In Numu thought, whirlwinds are believed to be the spirits of the dead who were not properly buried. Strict adherence to custom was absolutely necessary to avoid destruction and possible death.

Numu Traditional Practices

The main activities of the Numu religion involved praying, sprinkling water or brushing someone down with green sagebrush, devotion to the Sun and belief in the healing power of various plants and herbs found in the natural environment of Smith and Mason Valleys.

Sagebrush and water were other important symbols in the traditional religion of the Yerington Paiute Tribe. Other specific plants or animal parts used for cures included badger fat and black

ant egg broth for tuber-culosis or "toza'a" or a brown, cigar-shaped root smoked for the common cold. "Mugu duhupi", another valley floor plant, and "tsudoope" or Mormon tea, a mountain plant, also were used in treatment of the common cold.

Illness was treated by use of plants, animals or minerals found in the Smith and Mason Valley area. Whether a "puhagamu" was employed or the Numu doctored himself, prayers had to be spoken, to insure effectiveness of the means used.



Current Traditional Practices

The nature of the relationship between the Yerington Paiute Tribe and their environment has changed significantly in several periods, from contact to the mining period, to the 1970's when the last members settled in the town, ending historic life ways. It must be clear however that intact traditional life ways in the conterminous United States are rare and the norm is now a combination of historic and western lifestyle.

This lifestyle includes significant family and community connection to the environment and historic cultural practices. That connection is now more tenuous than it has ever been at any point historically, as practitioners of various religious rituals and cultural hunting and gathering practices are getting older and in some cases not be able to pass their knowledge on. This has led

to an active re-learning of historic practices by members of local bands/clans, and an increase in the exchange of new practices between tribes.

Part of that lifestyle change included loss of access to lands that were previously tribal, public, or private but not restricted/fenced. Those losses reduced the ability of members to collect many of the plants and animals for cultural uses. In the last two decades, tribal members in the Yerington area have often collected plants and animals in ditches and public right of ways. Tribal members have described how mining impacts from blowing dust, agricultural irrigation, fertilization, and pesticides have changed even the plant communities at the margins of these lands.

The mine site and associated infrastructure was located within Mason Valley, which includes the town of Yerington and residences of the Colony, Reservation, and various trust lands. The mechanical disruption of the environment, site fencing, and environmental impacts from mine operations have all reduced or eliminated direct and indirect use of the site. Areas that had public use are now restricted or closed, and the ability of Tribal members to collect plants or animals from public rights of way adjacent to private lands is now diminished or considered unreasonable because of chemical impacts by members. The ability to use historically public areas for recreation by Tribal members is also eliminated.

In review of the impacts that mining and agriculture have had on the tribal land base, it becomes apparent that any further development should occur away from any of the lands currently used by the Tribe for restoration purposes or propagating traditional plant materials.

6.0 Organization and Legal Analysis

The Tribal community is governed by an elected seven member Tribal Council with one of those seven members serving as the Chairperson for the organization. The Tribal Council's primary function includes the responsibility to promote and secure the social and economic well-being of the Tribe and its members. The Tribe's organizational structure follows that of the typical hierarchical business model with a well-defined chain of command and two levels of management between the Tribal Council and the general Tribal staff. Today, the Yerington Paiute Tribe is considered one of the most advanced tribes in the State of Nevada.

The Tribe is located in a heavily agriculturally based community and has ranch land devoted to alfalfa production. Other Tribally owned commercially oriented enterprises include the Arrowhead Market & Gas Station, a storage facility, and a Tribal Smoke Shop. The Tribe also leases a portion of reservation land to the Rite of Passage school and a Subway sandwich franchisee. The Tribe is actively pursuing further economic development opportunities including the new water treatment plant, expanding agricultural activities and smokeshop and mini-mart capabilities, and developing an Energy Park. The Tribe also operates various levels of government programs including education, environmental, health, housing, social services, tutoring, and wellness.

The Tribe has established an Environmental Office with a governmentally funded budget of \$500,000 to address the environmental impacts to its land and community from outside sources and to develop environmental awareness within its members. The Environmental Director is

responsible for five program staff and over five technical consultants, who work on grant writing, compliance with grant terms, and fulfillment of work plan activities.

The Tribe's current organizational chart shows the structure of the current Tribal government structure.

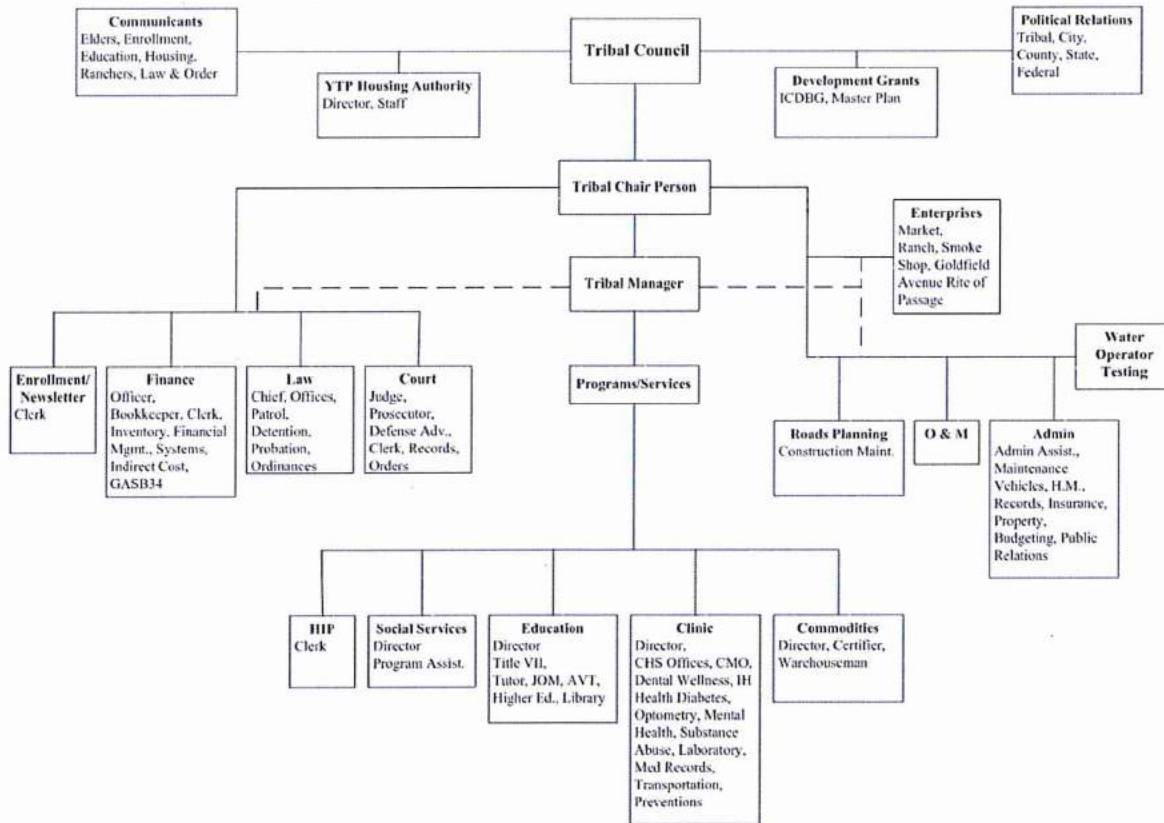


Figure 28. Yerington Paiute Tribal Organizational Chart

The Tribal Administrative offices are located at Campbell Ranch and operate a variety of governmental programs and enterprises. The Tribe relies heavily on federal funding to support its community needs. It has tried to become economically independent by adding income generating commercial activities such as ranching, land leasing, and mini-mart sales outlets, however, it has been somewhat encumbered by the proximate location of the vast Anaconda mining site, which is currently not listed on the National Priorities List, but has been designated as a Superfund Site. This site has adversely affected the tribe, bringing about health, environmental and economic development issues.

The Tribe is currently seeking other economic development opportunities. Renewable energy is a key element of the Tribe's economic development strategy for their future. The Tribe has a long history of maintaining and developing Tribal programs and entities and the Tribe has the organizational capability to operate successful business ventures.

The Tribe derives its authority from tribal government which was formed under the Indian Reorganization Act of 1934. This Act established self- rule for most Indian Tribes. On June 15, 1935, a referendum was held at Yerington Indian Colony with tribal members polled on this question. "Should the Indian Reorganization Act apply on this reservation?" Thirty one members were in support; three were not.

A constitutional election took place on December 12, 1936 at the Colony. A Tribal constitution and by- laws were ratified by a vote of fifty six to four. On April 10, 1937 a charter election was held and the first Tribal Council was established. The Constitution and By-laws of the Yerington Paiute Tribe were approved on January 4, 1937 by the Department of the Interior, Office of Indian Affairs.

The governing body is the Yerington Paiute Tribal council which is comprised of seven council persons elected by secret ballot. The Tribal Council elects from its own members: a chairperson, a vice-chairperson, a secretary and a treasurer. The Council holds office for two year terms. (Hittman, 1984)

Article VI of the Tribal Constitution

The Tribal Council shall have the following powers:

- (a) To employ representatives or legal counsel, the choice of counsel and fixing of fees, to be subject to the approval of the Secretary of the Interior.
- (b) To prevent the sale, disposition, lease, or encumbrance of any tribal assets without the consent of the Council.
- (c) To negotiate with Federal, State, and local governments on behalf of the Tribe.
- (d) To issue and revoke permits for the use of home sites within the reservation, subject to review by the Secretary of the Interior.
- (e) To manage all economic affairs and enterprises of the Yerington Paiute Tribe in accordance with the terms of a charter that may be issued to the Tribe by the Secretary of the Interior.
- (f) To promulgate and enforce ordinances which provide assessments or license fees for the use of tribal privileges upon non-members doing business within the reservation, subject to the approval of the Secretary of the Interior, and the same may also apply to members of the Tribe without such review, provided such ordinances have been approved by a referendum vote of the Tribe.
- (g) To regulate the disposition of home and property improvements made upon the lands of the Tribe.

(h) To promulgate and enforce ordinances, which shall be subject to review by the Secretary of the Interior, governing the conduct of members of the Tribe, and providing for the maintenance of law and order and the administration of justice by the establishment of an Indian Court, and defining its duties and powers.

(i) To promulgate and enforce ordinances which are intended to safeguard and promote the peace, safety, morals, and general welfare of the Yerington Paiute Tribe, by regulating the conduct of trade and use and disposition of the property of the Tribe, providing that any ordinance directly affecting non-members of the Tribe shall be subject to review by the Secretary of the Interior.

(j) To create and maintain a tribal fund by accepting grants or donations from any person, State, or the United States, and from tribal enterprises.

(k) To charter subordinate organizations for economic purposes and regulate by ordinance the activities of cooperative associations of members of the Yerington Paiute Tribe, provided that any such ordinance shall be subject to review by the Secretary of the Interior.

(l) To delegate to subordinate boards or to cooperative associations which are open to all members of the Tribe any of the foregoing powers, reserving the right to review any action taken by virtue of such delegated powers.

(m) To cultivate and preserve native arts, crafts, and culture.

The power of the Tribe under Article 1, subsections (e), (k), and (l) clearly provide the legal authority for the Tribe to run its own or subordinate entities. (Appendix A)

As stated previously the Tribe has the authority to manage all economic affairs and enterprises of the Tribe, charter subordinate organizations for economic purposes and to delegate to subordinate boards or to cooperative associations of the Tribe any of the powers of the Tribal Council, as stated in the Tribal Constitution.

The memorandum from Galanda Broadman, PLLC delineate the types of legal entities that the Tribe can utilize when it chooses to establish a Tribal business entity. At present the Tribe has utilized a small energy committee to assist in the planning and development of an energy plan and to provide oversight to the staff and consultant on this project.

The Tribal Council currently manages all business entities of the Tribe. Future renewable energy projects will determine the capability of the current arrangement to manage these projects. The size, financing, type of project and the current status of the Tribal Council will have bearing on the type of legal entity chosen.

The following summarizes some of the restrictions and pros and cons that certain types of legal entities encounter. Appendices B and C also address these concerns.

Type of Structure	Sovereign Immunity
Unincorporated Business	Shares in same sovereign immunity as tribal government; waiver must be accomplished under tribal law.
Political Subdivision	Shares in same sovereign immunity as tribal government; waiver must be accomplished under tribal law.
Section 17 Corporation	May share in the Tribe's sovereign immunity under the corporate charter; beware of "sue and be sued" clauses/waivers of sovereign immunity.
State Law Corporations	State law will provide whether or not the entity may sue and be sued; courts may find immunity preserved in certain circumstances.
Tribally Chartered Corporations	Uncertain treatment; the more separate and distinct the entity from the Tribe, the less likely to share in the Tribe's immunity from suit.
Tribal LLC	Uncertain treatment; the more separate and distinct the entity from the Tribe, the less likely to share in the Tribe's immunity from suit.

Federal Tax Treatment (state tax treatment will vary by state):

Type of Structure	Federal Tax Treatment
Unincorporated Business	Exempt from federal income tax.
Political Subdivision	The IRS's practice is to exempt political subdivisions from federal income tax. Must qualify as a "political subdivision"—delegated substantial governmental powers.
Section 17 Corporation	Exempt from federal income tax.
State Law Corporations	Not exempt from federal income tax.
Tribally Chartered Corporations	Tax treatment is uncertain. No IRS Guidance on this issue.
Tribal LLC	Tax treatment is uncertain. No IRS Guidance on this issue.

Financial Opportunities:

Type of Structure	Financial Opportunities
Unincorporated Business	May issue tax-exempt bonds.
Political Subdivision	May issue tax-exempt bonds.
Section 17 Corporation	May issue tax-exempt bonds.
State Law Corporations	Unable to issue tax-exempt bonds.
Tribally Chartered Corporations	Uncertain as to whether or not may issue tax-exempt bonds.
Tribal LLC	Uncertain as to whether or not may issue tax-exempt bonds.

Ease of Formation:

Type of Structure	Ease of Formation
Unincorporated Business	No formation of separate entity required.
Political Subdivision	Fairly easy to form, but requires federal approval to reap benefits under federal law. Must qualify as a "political subdivision"—delegated substantial governmental powers.
Section 17 Corporation	Federal approvals increase the time required for formation; several layers of approval necessary.

State Law Corporations	Easy to form, but under state law.
Tribally Chartered Corporations	Must be formed under tribal law; ease depends on existing legal structures. Once Business Corporation Code is established, formation will be quicker and easier.
Tribal LLC	Must be formed under tribal law; ease depends on existing legal structures. Once Limited Liability Company Code is established, formation will be quicker and easier.

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8.0 Appendix

Appendix A – Advantages/Disadvantages of Legal Entities

Appendix B – Sovereign Immunity Factors in Recent Judicial Decisions

Appendix C – Articles of Incorporation/Bylaws Template for Tribally Chartered Corporation

Appendix A – Advantages/Disadvantages of Legal Entities

TYPE OF ENTITY	LAW GOVERNING FORMATION	SOVEREIGN IMMUNITY	LEGAL LIABILITY	LEGAL TAX TREATMENT	FINANCING
Tribal Instrumentality and unincorporated entity	Tribal law, constitution, code, resolution or ordinance	Can share the same attributes of immunity as tribal government; immunity can be waived by tribe; waiver must be in accordance with tribal law	Tribal assets may not be segregated from entity; Tribal government may be liable for debts and obligations of tribal enterprise	Not subject to federal income tax (regardless of location of business activities) if the entity is not separate from the tribe.	Equity financing not possible; may qualify for tax-exempt financing if IRS requirements met; may be eligible for government guaranteed loans
Tribal Political Subdivision	Created under Tribal law through a special purpose ordinance or resolution to exercise one or more sovereign powers delegated by the tribe	Shares same attributes of immunity as tribal government; immunity can be waived by tribe	Whether tribal government is liable for debts and obligations of its political subdivisions would be determined under tribal law.	IRS practice has been to treat political subdivisions the same as the tribe—so long as they qualify as such by having been delegated substantial governmental powers	Can be both borrower and issuer of tax-exempt financing for facilities or operations that meet the essential governmental functions test; may be eligible for government guaranteed loans; can issue clean renewable energy bonds (CREBS)

Tribally Chartered Corporation	Tribal law, constitution, code, resolution or ordinance	A corporation that operates independent from the tribal government may not share the immunity of the tribe (multi factor test).	A wholly owned tribal corporation should make clear in its organizing documents that the tribal shareholder is not liable for debts of the corporation except to the extent of its contributed capital or the shares it owns.	Tax treatment is uncertain. In, 2001, the IRS and the Treasury Department agreed to resolve the uncertainty by issuing guidance but have not yet done so. For this reason, many tribal advisors have ceased creating new tribal law corporations	It is not clear whether tribal law corporations can issue tax exempt bonds. Government guaranteed loans, taxable bond issuances, private placements, commercial bank financing available.
TYPE OF ENTITY	LAW GOVERNING FORMATION	SOVEREIGN IMMUNITY	LEGAL LIABILITY	LEGAL TAX TREATMENT	FINANCING
Section 17 Corporation	Federal charter issued under the Indian Reorganization Act	Corporate charter can confer the same privileges and immunity as tribe; waivers of sovereign immunity pursuant to the "sue and be sue clause" in the corporate charter should be limited to a waiver of only the corporation's sovereign immunity and such waiver should be restricted in scope to transactions of the corporation and limited to claims against the assets of the corporation and not the tribe itself	Assets and liabilities of the corporation are segregated from tribal government assets; Tribal government can pledge assets or property to the corporation; tribal government is not liable for debts or obligations of the corporation	Not subject to federal income tax regardless of location of business activities	Section 17 Corporation can pledge assets and property of the corporation; is eligible for government guaranteed loans; can issue tax exempt bonds for "essential governmental services" and can issue clean renewable energy bonds; joint ventures or equity partnerships possible through a LLC subsidiary chartered under a Section 17 corporation.

State Law Corporation	Created under state law for-profit or nonprofit purposes	Need to look at state law to determine power to sue and sued	Assets and liabilities of the corporation are segregated from tribal government assets; Tribal government can pledge assets or property to the corporation; tribal government is not liable for debts or obligations of the corporation	IRS has taken position that a state chartered tribal corporation does not share the same tax status as the tribe and it therefore taxable.	Does not qualify as an issuer of tax-exempt bonds or clean renewable energy bonds.
State Chartered Limited Liability Company	Created under state law	A single member LLC owned by a tribe would likely be considered a separate legal entity for purpose of legal process and thus not likely to be viewed as sharing the tribe's immunity from suit	Has advantage of limited liability like a corporation; Tribe is not liable for debts or liabilities of LLC.	Taxed like a partnership or other "flow through" entity. IRS has not ruled on treatment of tribal single member LLC, in the absence of a rule, tribal advisors believe that a tribal government owned- LLC should be treated as a division of tribal government of tax purposes.	Does not qualify as an issuer of tax-exempt bonds or clean renewable energy bonds.

Appendix B –

SOVEREIGN IMMUNITY FACTORS IN RECENT JUDICIAL DECISIONS

In determining whether a tribal enterprise or business entity shares the tribe's immunity from suit, courts typically consider a number of factors, including but not limited to the following: • Whether a judgment against the tribal entity will reach the tribe's assets • Whether the tribal entity has the power to bind the tribe's assets or to obligate tribal funds • Whether the tribe and the tribal entity are closely linked through governance structure and other characteristics (e.g., tribal control over appointment and removal of entity board members, extent of board's power over the entity's operations) • Whether federal Indian law policies intended to promote tribal self-determination would be furthered by extending immunity to the entity • Whether the entity is organized for governmental or for "commercial" purposes • Whether the entity holds title to property in its own name • Whether the entity is legally separate and distinct from the tribe (e.g., as is normally the case with a separately incorporated entity). In several jurisdictions, the main factors that determine whether a tribal enterprise or entity shares the parent tribe's sovereign immunity are (1) whether a judgment against the entity will reach the tribe's assets, and (2) whether the entity has the power to bind the tribe's assets or obligate the tribe's funds.¹⁰⁴ In some jurisdictions, if the answers are "no," the inquiry ends. Tribal entities that generate their own revenue and cannot bind or obligate tribal funds cannot lay claim to tribal sovereign immunity.¹⁰⁵ In others, these are just two factors to consider.¹⁰⁶ Another key factor is whether the tribe and the tribal entity, such as an entity, are closely linked in governing structure and other characteristics. Courts typically analyze the corporation's board of directors, including its composition, how its members are chosen, and the tribe's control over the procedure for their removal.¹⁰⁷ If the corporation's board of directors is separate from the tribal government so that the board exercises full managerial control over the corporation, the corporation is more likely to be considered a separate and distinct entity that does not share the tribe's immunity. Also relevant is the level of control the tribe retains over appointing and removing board members. The less control the tribe has, the less likely a finding in favor of immunity.

Another factor typically analyzed is whether federal policies intended to promote Indian tribal autonomy are furthered by extending immunity to the entity. Examples of applicable federal policies include protecting tribal assets; protecting tribal cultural autonomy; promoting commercial dealings between tribes and non-Indians; and promoting tribal self-determination.¹⁰⁸ A finding that extending immunity to the entity would support some or all of these policies weighs in favor of a finding that it shares the tribe's immunity. The nature of the entity's purpose is also given weight by several courts, but in varying amounts. Courts typically enquire whether the entity was organized for governmental or commercial purposes.¹⁰⁹ However, the distinction between the governmental and commercial purposes is not always clear. For example, a tribal entity organized to operate tribal gaming enterprises was held to be organized for a "governmental purpose," based on the Indian Gaming Regulatory Act's goal to encourage tribal self-determination and its restrictions on the uses to which gaming revenues can

be put.¹¹⁰ By contrast, a for-profit corporation formed to carry out construction projects was considered to have a commercial purpose.¹¹¹ While court determinations are difficult to predict, tribal entities that deal with traditional government functions, such as health, education, and the welfare of tribal members, are more likely to be considered "governmental," than for-profit entities whose primary activity is conducting an off- reservation business. Several other factors are relevant in determining a tribal entity's ability to exercise sovereign immunity. The first is whether the entity holds title to property in its own name.¹¹² Evidence that the tribe holds title to the entity's property weighs in favor of a finding of sovereign immunity. The second is whether the entity is incorporated. In at least one court, the fact that a tribal entity is incorporated provided the court with strong evidence that the entity is separate and distinct from the tribe and therefore cannot share its immunity.¹¹³ Clearly, if extended, this reasoning would preclude all tribal corporations from exercising sovereign immunity. At this point, however, it is just one of the factors considered. In conclusion, the guiding principle is that the closer and more inter-connected the tribe is with the tribal entity, the more likely it is that the entity shares the tribe's immunity, particularly if the entity's purpose relates to core governmental functions.

Appendix C –

EXPLANATION OF ARTICLES OF INCORPORATION

"Articles of incorporation" is the term used to refer to a corporation's organizing instrument. Section III.B. contains an example of drafted articles of incorporation and is discussed in detail in this section. Any version of the articles of incorporation must conform with the Yerington Paiute Tribe constitution, business code, and other applicable law. Thus, no one will apply equally to each Tribe. This Guide, instead, offers an example of articles of incorporation for a tribally chartered corporation and walks through potential options for each section provided in the articles.

I. Name. The Articles of Incorporation should state the name of the corporation. The name of the corporation under a tribally chartered corporation may be anything the Yerington Paiute Tribe so chooses, so long as the name chosen complies with the Yerington Paiute Tribal Business Corporation Code and other tribal law.

II. Purpose. The Articles should state the corporate purposes of the tribal corporation. Some state law provides that a business corporation may make a general statement that "the corporation is formed to engage in an activity within the purposes for which a corporation may be organized" under the State Corporations Act. Nonprofit corporations cannot, however, make such a general statement. They must state the corporate purposes with specificity. **The manner by which the Yerington Paiute Tribe decides to state the corporate purposes is within the discretion of the Yerington Paiute Tribe, as permitted by the Yerington Paiute Tribe statute or business code.**

III. Definitions. This section may be very fluid and should contain definitions for all relevant terms contained in the Articles of Incorporation.

IV. Jurisdiction. This Article is used to define the jurisdiction in which the Articles shall apply. This is an example of a permissive article that is not required, but the Yerington Paiute

Tribe may decide to include it if the Yerington Paiute Tribe wishes to state with specificity where the articles shall apply.

V. Duration. The Yerington Paiute Tribe may choose the duration of the corporation, including a perpetual duration. The Business Corporation Code provides that the Articles must state the duration of the corporation, which may be perpetual.

VI. Principal Place of Business; Resident Agent. The Articles should contain the principal place of business for the corporation. The principal place of business could be located within the Yerington Paiute Tribe territorial jurisdiction. The Yerington Paiute Tribe may include in its Business Corporation Code whether the corporation must have its principal place of business within the Yerington Paiute Tribe territorial jurisdiction or not as well as whether the resident agent's residence must be within the Yerington Paiute Tribal territorial jurisdiction. Regardless of the Yerington Paiute Tribe decision on this point, the Articles must comply with the Yerington Paiute Tribe Business Corporation Code. The Articles should also state the street address of the corporation's registered office and the mailing address, if it is different, as well as the corporation's resident agent at that address.

VII. Corporate Powers; Directors; Officers. This section is of the utmost importance for tribally chartered corporations. The Yerington Paiute Tribe will need to decide how to structure the division of authority between the corporation and the Tribal Council and Executive Branch of the Yerington Paiute Tribe. As discussed above in Section HE., an advantage of tribally chartered corporations is that the day-to-day operations of the corporation can be free from the effects of the political process. Thus, granting the Board the authority to manage the corporation is vital to this 's success. Again, this article should align with the Yerington Paiute Tribe Business Corporation Code, which should detail the separation of duties between the tribal government and the Board.

The Yerington Paiute Tribe has flexibility in its Articles as to what duties it assigns to the Board versus any duties or oversight granted to the Yerington Paiute Tribe. Generally, the Board of Directors has some degree of autonomy from the elected leadership within the Yerington Paiute Tribe. Granting too much autonomy, however, may reduce the likelihood that the corporation may be able to share the same immunity from suit as the Yerington Paiute Tribe itself. In the Yerington Paiute Tribe Business Corporation Code or in the articles of incorporation, the Yerington Paiute Tribe may want to address the qualifications necessary to become a Director, including tribal membership, business experience, or other criteria.

The Yerington Paiute Tribe may also want to allow the Board to appoint officers to run the daily operations of the corporation, while the Board oversees and governs the corporation. The details of the structure are left to the Yerington Paiute Tribe to decide. The Articles of Incorporation have the Board of Directors as the decision-makers for the corporation, with an option to appoint officers to handle daily activity.

Finally, the Yerington Paiute Tribe will also want to address how to—and who has the authority to—remove Directors. There are several options that a tribal corporation could choose for its articles. The power to remove could lie entirely with the Tribal Council. The power could be divided between the Board and the Tribal Council, or the Executive Branch of the Yerington Paiute Tribe could be involved. The Articles attempt to strike a balance by providing that a majority of the Board may remove a Board member, with or without cause and that a majority of the Tribal Council may remove a Board member, for cause, after notice and a hearing. This structure attempts to limit any pressure that the political process may place on tribal corporations by requiring that the Tribal Council follow an established procedure and only be allowed to

remove a Director for cause. The discretionary decisions to remove reside with the remaining Board members.

VIII. Bylaws. The bylaws of a corporation may contain any provision for managing the business and regulating the affairs of the corporation that is not inconsistent with law or the articles of incorporation. If there is any inconsistency between the two, then the articles shall prevail. Generally, the initial bylaws of the corporation shall be adopted by the initial incorporators, the shareholders, or the Board. Subsequent amendments or repeals of the bylaws may be made by the shareholders, the Yerington Paiute Tribe, or by the Board, unless the articles or bylaws specifically provide otherwise.

IX. Immunities of the Corporation. This article is also very important to the Yerington Paiute Tribe and to the corporation. This article extends the Yerington Paiute Tribe rights, privileges, and immunities related to federal, state, and local taxes, regulation, and jurisdiction. There is some debate, as discussed above, as to the tax treatment of tribally chartered corporations, but the IRS has not yet issued any guidance stating that entities like this will not receive the same tax treatment as a Yerington Paiute Tribe. This article also allows the Yerington Paiute Tribe to extend its sovereign immunity to the corporation. There may also be some issues with this action, see above, but this article is important to protect the corporation from suit. The corporation, under this article, will be able to waive sovereign immunity, to an extent, without returning to the Tribal Council each time it signs a new contract. Also vitally important in this article is that the Yerington Paiute Tribe limit its liability and potential waiver of immunity in the articles by distinguishing itself from the corporation.

X. Authorized Shares. This article should describe the number of authorized shares of stock, if any. It should also address how dividends will be paid.

XI. Incorporators. The Articles should state the names and addresses of all the incorporators.

XII. Approval and Amendment. This is a permissible article, but not required. The Business Corporation Code should set forth the procedure for approving and amending the articles, but this may be included in the articles as well.

XIII. Effective Date. This provision should align the Yerington Paiute Tribe Business Corporation Code as well as the Yerington Paiute Tribe Constitution and other law.

ARTICLES OF INCORPORATION FOR A TRIBALLY CHARTERED CORPORATION

ARTICLE I.

NAME OF THE CORPORATION

Section 1.01. The name of the corporation is [NAME].

ARTICLE II.

PURPOSE OF THE CORPORATION

Section 2.01. The purposes for which the corporation is organized are to engage in any lawful act or activity for which corporations may be organized under the [YERINGTON PAIUTE TRIBE] Business Corporation Act.

ARTICLE III.

DEFINITIONS

The following definitions shall apply to this Code:

Section 3.01. "Articles " means these Articles of Incorporation.

Section 3.02. "Board of Directors" or "Board" means the Board of Directors of the Corporation.

Section 3.03. "Bylaws" means the bylaws of the Corporation, which may be adopted under Article VIII.

Section 3.04. "Corporation "means the [NAME].

Section 3.05. "Director(s) "means a member of the Board.

Section 3.06. "Tribal Constitution " means the [YERINGTON PAIUTE TRIBAL CONSTITUTION].

Section 3.07. "Tribal Council" means the tribal council of the [YERINGTON PAIUTE TRIBE].

Section 3.08. "Yerington Paiute Tribe "means [YERINGTON PAIUTE TRIBE].

ARTICLE IV. JURISDICTION

Section 4.01. The provisions of these Articles of Incorporation shall apply to the fullest extent of the sovereign jurisdiction of the [YERINGTON PAIUTE TRIBE], as authorized by the Tribal Constitution, [ANY OTHER APPLICABLE LAW], and applicable federal law. The provisions of these Articles of Incorporation shall apply to and be in conformity with all agreements and other cooperative arrangements entered into by the [YERINGTON PAIUTE TRIBE] designed to ensure economic self-sufficiency for the [YERINGTON PAIUTE TRIBE].

ARTICLE V. DURATION

Section 5.01. The term of existence of the Corporation shall be perpetual.

ARTICLE VI.

PRINCIPAL PLACE OF BUSINESS; RESIDENT AGENT

Section 6.01. The Corporation's principal office for the transaction of business shall be within the [TRIBAL BOUNDARIES] in the State of Nevada. The Corporation may have other offices, either within or without the [YERINGTON PAIUTE YERIN TRIBE] boundaries as needed.

Section 6.02. The name of the resident agent is [NAME].

Section 6.03. The street address of the location of the registered office is [ADDRESS].

Section 6.04. The mailing address of the registered office if different than above is [ADDRESS].

ARTICLE VII. CORPORATE POWERS, DIRECTORS, OFFICERS

Section 7.01. Manner of Exercising Corporate Powers. The corporate powers of the Corporation are to be exercised by the Board of Directors. Matters to be voted on by the Board shall be approved if a majority of the Directors present (in person by proxy) at a meeting of the Directors vote in favor of such action.

Upon written notice of the time and place and purpose or purposes of any special meeting, any of the Directors, in between regular meetings of the Board, may consent in writing to any specific action to be taken by the Corporation which, if approved by a majority of the Directors at such special meeting, including those consenting in writing, shall be valid as a corporate action as though authorized at a regular meeting of the Board of Directors. The minutes of such approval and actions shall be fully recorded, each written consent shall be made a part thereof, and such minutes and written consent shall be reviewed at the next regular meeting of the Board of Directors.

Section 7.02. Initial Board of Directors. The initial Board of Directors shall consist of [NUMBER] of Directors. The names and addresses and terms of the initial Board of Directors are as follows:

Director's Name/Address	Date of Term Expiration
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Upon the selection of the initial Board, the Tribal Council [OR EXECUTIVE] shall stagger the terms of the initial Directors, by lot, so that one Director will serve an initial term of one year, [NUMBER] Directors will serve an initial term of two years, and [NUMBER] Directors will serve an initial term of three years.

Section 7.03. Directors. The Board of Directors shall consist of no less than [NUMBER] Directors and no more than [NUMBER] Directors. A Director shall be selected by

the [TRIBAL COUNCIL/EXECUTIVE/TRIBAL COUNCIL AND THE EXECUTIVE]. At least [NUMBER] Director of the Corporation shall be a member of the Tribal Council. At least [NUMBER] Director shall be a member of the [YERINGTON PAIUTE TRIBE], but not be a member of the Tribal Council. [NUMBER] Directors shall be persons experienced in business and/or financial management and need not be a member of the Yerington Paiute Tribe. All Directors shall hold office for a period of [NUMBER] years and shall continue to serve until their successors are duly selected and qualified. Terms of Directors shall be staggered so that one-third of the Directors shall be selected each calendar year.

Section 7.04. Quorum of Directors. A majority of the Directors holding office at the time of a meeting of the Board shall constitute a quorum for the transaction of any business.

Section 7.05. Filling Vacancies. Vacancies on the Board of Directors shall be filled by the [TRIBAL COUNCIL OR EXECUTIVE].

Section 7.06. Resignation; Removal. Any Director may resign from office at any time by providing written notice to the Corporation. A Director may be removed, with or without cause, by an affirmative vote of the majority of other Directors. The Tribal Council may also initiate removal proceedings to remove one or more Directors, for cause, if, after notice and a hearing are provided to the Directors at whom removal proceedings are directed, a majority of the Tribal Council determines that the Director(s) specifically and substantially failed to perform his or her duties as Director.

Section 7.07. Officers. The Board may appoint the following officers: a President, Vice-President, Secretary, and Treasurer. The President and the Vice-President shall be Tribal members. The Board may appoint other officers as it deems necessary to achieve the Corporation's purposes. The Board shall appoint the officers at each annual meeting, unless the Board specifies a different time for such appointment. Officers shall serve until the next annual meeting and until his or her successor assumes office. Officers may resign by delivering written notice to the President or to the Board. A resignation shall be effective upon receipt, unless otherwise provided by the terms thereof. The Board may remove an officer, with or without cause. The Board may provide for the duties of an officer in the Bylaws of the Corporation, or as by resolution of the Board that is not inconsistent with the bylaws.

ARTICLE VIII. BYLAWS

Section 8.01. The Board of Directors, at any regular or special meeting, is authorized to adopt, alter, amend, or repeal Bylaws and to adopt new Bylaws not inconsistent with the applicable law or these Articles of Incorporation, by an affirmative vote of a majority of the Directors.

ARTICLE IX. OPERATIONAL REQUIREMENTS

Section 9.01. Assets of the Corporation. All assets acquired by the Corporation shall belong to the Corporation as a distinct corporate enterprise of the Yerington Paiute Tribe.

Section 9.02. Fiscal Year. The fiscal year of the Corporation shall be [calendar year/determined by the Board].

Section 9.03. Books and records. The Corporation shall maintain, at its principal place of business, all financial books and records, all minutes of the Board meetings, and all other material books, records, documents, correspondence, and contracts. All such materials shall be made available, at a reasonable time, for inspection and copying by the Tribal Council, any duly authorized representative of the Tribal Council, or any Director.

Section 9.04. Report to Tribal Council. Within 60 days of the close of the Corporation's fiscal year, the Corporation shall prepare and deliver to the Tribal Council an annual report and audited financial statement, including a balance sheet and a statement of income and expenses, including comparative figures from the preceding fiscal year.

ARTICLE X. IMMUNITIES OF THE CORPORATION [This Article presents an example of one possible manner of addressing immunity issues. Tribal legal counsel should ensure that any immunity issues addressed in the Code or in the Articles complies with the Yerington Paiute Tribe constitution].

Section 10.01. Jurisdictional Immunity of the Corporation. The [YERINGTON PAIUTE TRIBE] confers on the Corporation all of the Yerington Paiute Tribe rights, privileges, and immunities concerning federal, state, and local taxes, regulation, and jurisdiction, to the same extent that the Yerington Paiute Tribe has such rights, privileges, and immunities, if it engaged in the business of the Corporation.

Section 10.02. Sovereign Immunity of the Corporation. The [YERINGTON PAIUTE TRIBE] confers on the Corporation sovereign immunity from suit to the same extent that the Yerington Paiute Tribe would have such immunity if the Yerington Paiute Tribe engaged directly in the business of the Corporation. The Corporation shall have the power to sue and is authorized to consent to be sued in the [YERINGTON PAIUTE TRIBAL COURT] or another court of competent jurisdiction; provided, however, that such consent shall be explicit, in a written contract or commercial document to which the Corporation is a party, the Board of Directors specifically approved the written instrument, and any recovery against the Corporation shall be limited to the assets of the Corporation.

Consent to suit may be limited to the court or courts in which suit may be brought, to the matters that may be made the subject of the suit, and to the assets or revenues of the Corporation against which any judgment may be executed. The Corporation's consent to suit shall in no way extend to, or be deemed a waiver of, the Yerington Paiute Tribe rights, privileges, and immunities. The Yerington Paiute Tribe shall not be liable for the payment or performance of any of the obligations of the Corporation, and no recourse shall be had against any assets or revenues of the Yerington Paiute Tribe in order to satisfy the obligations of the Corporation. The sovereign immunity of the Corporation shall not extend to actions against the Corporation by the Yerington Paiute Tribe.

ARTICLE XI. AUTHORIZED SHARES

Section 11.01. The Corporation shall be authorized to issue [NUMBER] shares, which shall be held by the [YERINGTON PAIUTE TRIBE] pursuant to the [YERINGTON PAIUTE TRIBE] Business Corporation Code.

Section 11.02. Dividends shall be paid in accordance with the Business Corporation Code.

ARTICLE XII. INCORPORATORS

Section 12.01. The names of the incorporators and their respective places of residence are as follows:

NAME	RESIDENCE
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ARTICLE XIII. APPROVAL AND AMENDMENT

Section 13.01. Approval of Articles. These Articles of Incorporation shall be issued and become effective upon their adoption by the Tribal Council in accordance with the Yerington Paiute Tribe Business Corporation Code.

Section 13.02. Amendment of Articles. The Board of Directors of the Corporation may, by [Majority] vote, amend these Articles, provided that any amendment is ratified by the Tribal Council.

ARTICLE XIV. EFFECTIVE DATE.

The effective date of these Articles is [DATE].