

Alternatives

Table 8-6. Summary of Environmental Impacts of 42 MW(e) Conservation Measures, Plus 500 MW(e) Gas-Fired Generation, and 294 MW(e) Purchased Power

Impact Category	ANO Site Conservation, Gas-Fired Generation, and Purchased Power		Greenfield Conservation, Gas-Fired Generation, and Purchased Power	
	Impact	Comments	Impact	Comments
Land Use	SMALL to MODERATE	Gas-Fired: Additional land required for power block, additional land disturbed for pipeline construction, additional land for backup oil storage. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.	SMALL to MODERATE	Gas-Fired: Additional land required for power block, and additional land disturbed for pipeline construction. An estimated 116-km (10-mi) transmission line connection. Additional land for backup oil storage. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.
Ecology	SMALL to MODERATE	Gas-Fired: Constructed on land adjacent to ANO site. Significant habitat loss due to pipeline construction. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.	SMALL to MODERATE	Gas-Fired: Impact depends on location and ecology of the site. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.
Water Use and Quality				
Surface Water	SMALL to MODERATE	Gas-Fired: Reduction in water flow. Purchased Power: Impact depends on volume and characteristics of receiving body of water.	SMALL to LARGE	Gas-Fired: Impact depends on volume and characteristics of receiving body of water. Purchased Power: Impact depends on volume and characteristics of receiving body of water.
Groundwater	SMALL to MODERATE	Gas-Fired: No impact on groundwater. Purchased Power: Depend on uses, available supply.	SMALL to MODERATE	Gas-Fired: Impact depends on uses, available supply. Purchased Power: Impact depends on uses, available supply.
Air Quality	SMALL to MODERATE	Gas-Fired: Primarily nitrogen oxides for gas-fired plant. Purchased Power: Depends on source of power. Moderate impacts potentially produced from coal plants.	SMALL to MODERATE	Gas-Fired: Similar impact as for ANO site. Purchased Power: Depends on source of power. Moderate impacts potentially produced from coal plants.

Table 8-6. (contd.)

Impact Category	ANO Site Gas-Fired Generation, Conservation and Purchased Power		Greenfield Gas-Fired Generation, Conservation and Purchased Power	
	Impact	Comments	Impact	Comments
Waste	SMALL to MODERATE	Gas-Fired: Minor waste generation. Purchased Power: Depends on source of power. Moderate impacts potentially produced from coal plants.	SMALL to MODERATE	Gas-Fired: Same impact as for ANO site. Purchased Power: Depends on source of power. Moderate impacts potentially produced from coal plants.
Human Health	SMALL	Gas-Fired: Impact considered to be minor (see discussion of gas-fired alternative). Purchased Power: Impact minor for likely sources of purchased power.	SMALL	Gas-Fired: Same impact as for ANO site. Purchased Power: Impact minor for likely sources of purchased power.
Socio-economics	SMALL to MODERATE	Gas-Fired: 250 to 375 additional workers during 3-year construction period; followed by a reduction in employment from 573 persons at ANO to less than 100. Purchased Power: Any additional workers employed would be in community from which power is purchased.	SMALL to MODERATE	Gas-Fired: 250 to 375 additional workers during 3-year construction period; followed by a reduction in employment from 573 persons at ANO to less than 100. Purchased Power: Any additional workers employed would be in community from which power is purchased.
Aesthetics	SMALL to MODERATE	Gas-Fired: Visual impact of stacks would be noticeable, but not as significant as coal option. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.	SMALL to MODERATE	Gas-Fired: Alternate locations could reduce the aesthetic impact if siting is in an industrial area. Purchased Power: Impact depends on source of power and if expansion of existing plant and/or construction of new plant is required.
Historic and Archeological Resources	SMALL	Gas-Fired: Only previously disturbed and adjacent areas would likely be affected. Purchased Power: Impact depends on location, would necessitate cultural resource studies.	SMALL	Gas-Fired: Alternate location would necessitate cultural resource surveys. Purchased Power: Impact depends on location, would necessitate cultural resource studies.
Environmental Justice	SMALL to MODERATE	Gas-Fired: Impact on minority and low-income should be similar to those experienced by the population as a whole. Purchased Power: Impact depends on population distribution and makeup.	SMALL to MODERATE	Gas-Fired: Impact depends on population distribution makeup. Purchased Power: Impact depends on population distribution and makeup.