

Echo Cliffs Health Center: Sustainability Profile

Building owner: Tuba City Regional Healthcare Corporation (TCRHC)

Location: Bodaway Gap, Arizona

Climate zone: 5B-Dry (Desert/Xeric Shrubland)

Project size: 123,565 square feet

Elevation: 5,000+ feet above sea level

Completion date: Design Only: December 2023



Title V Construction Project Agreement: Project administered pursuant to Title V of the Indian Self-Determination and Education Assistance Act and the Self-Governance federal regulations at Title 42, Code of Federal Regulations, Part 137, Subpart N.



On-Site Renewable Energy System: A new ground mounted photovoltaic (PV) array system is capable of generating 10% of the proposed building's annual energy consumption generating 188,760Wdc, or the equivalent of 10.3 homes' energy use for 1 year.



Biophilic Design: As outlined in the 2022 IHS Architect/Engineer Design Guide, to support and improve health, well-being, and productivity all new design/construction projects are to provide and incorporate elements of nature in the indoor environment (see below images w/numbered locations):

Direct Experience of Nature/Experience of Space and Place: (#10) All three building stairs are designed to be full of daylight, comfortable, and inviting with spectacular views.

Indirect Experience of Nature: (#14) Use and reverence of natural materials.



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Main Patient Entry

LEED® Facts	
Echo Cliffs Health Center Bodaway Gap, AZ	
LEED v4 BD+C for New Construction Certification Awarded: Pending	
Gold	66*
Innovation & Design	5 / 6
Location & Transportation	2 / 16
Sustainable Sites	10 / 10
Water Efficiency	6 / 11
Energy & Atmosphere	24 / 33
Materials & Resources	5 / 13
Indoor Environmental Quality	9 / 16
Regional Priority	4 / 4
Integrative Process (HC Adaptation)	1 / 1



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Main Lobby

Design Case	Baseline Case
<small>"ASHRAE 90.1-2013"</small>	<small>"ASHRAE 90.1-2013"</small>
694 (lbm/yr. CO2e)	793 (lbm/yr. CO2e)
<small>*equivalent to 165 gas-powered passenger vehicles driven for one year*</small>	<small>*equivalent to 189 gas-powered passenger vehicles driven for one year*</small>
83.7 Site EUI Btu/(ft2-yr.)	93.1 Site EUI Btu/(ft2-yr.)
<small>*energy consumption at the site*</small>	<small>*energy consumption at the site*</small>
136.1 Source EUI Btu/(ft2-yr.)	165.7 Source EUI Btu/(ft2-yr.)
<small>*energy consumption at power plant*</small>	<small>*energy consumption at power plant*</small>
20% w/*PV <small>*Photovoltaic (PV) Array System</small>	0%
<small>% Improvement Over Baseline IHS A/E Design Guide Req. 30% Improvement</small>	<small>No Improvement Over Baseline</small>
<small>Monthly Energy Consumption</small>	<small>Monthly Energy Consumption</small>

The Guiding Principles for Federal Sustainable Buildings: The program intent is to advance sustainable building principles and practices throughout the IHS' portfolio.



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Cafeteria