Summary of Key Issues and Review of Alternatives

Chapter 12 Energy Element

Chapter 12 Energy Element				
Key Topics and Issues	**Plan Update Approach (Alternative B)**	**Existing Framework Plan (Alternative D)**	**Alternative A**	**Alternative C**
Energy and Land Use. What role should the County play in regulating and providing incentives for investments in energy conservation and renewable energy systems? Key Policies: P1	Provides incentives for discretionary development incorporating renewable energy sources and conservation measures consistent with this Plan (P1).	The Energy Element is a new optional element and was not included in the 1984 Framework Plan. However, there were some energy related policies and standards, but these did not provide a comprehensive approach to energy resources and did not address energy and land use, opportunities to reduce energy use, or strategic energy planning.	In addition to the incentives of alternative B, A includes the development of an ordinance to set building energy performance standards (P1, IM14) and an additional tier of policies on transportation, landscaping, purchasing, water efficiency, alternative energy. (P10-15).	Alternative C would be the least responsive to energy conservation, opting instead to minimize County government involvement in energy conservation. Alternative C would not adopt any new proposed policies, standards, or implementation measures, but would continue the energy policies contained in the current Framework Plan
Local Energy Resources. Should the County be involved in the development of local energy resources?	Supports projects consistent with the Plan that increase local energy supply and decrease expenditures for imported energy (P3). Promotes electrical transmission capacity upgrades (P9). Regulates development of oil, gas ad		In addition to the policies of alternative B, would support local management and ownership of energy supplies (P3).	

Chapter 12 Energy Element				
Key Topics and Issues	**Plan Update Approach (Alternative B)**	**Existing Framework Plan (Alternative D)**	**Alternative A**	**Alternative C**
Key Policies: P3	wind resources (S-1,2,3)			
Opportunities to Reduce Energy Use and Develop Renewables. What should be the strategy to reduce energy consumption and develop renewable energy resources? Key Policies: P5-8	Develops a program to reduce County-wide energy consumption through a Redwood Coast Energy Authority (RCEA) Comprehensive Action Plan for Energy (P6). Implements an energy conservation program for county operations (P7,8)		In addition to the incentives of alternative B, A Includes an additional tier of policies on transportation, landscaping, purchasing, water efficiency, alternative energy. (P10-15).	

Plan Alternatives Comparison Chart
Chapter 12 Energy Element

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				12.4 Goals		
A	**B**			**E-G1. Countywide Strategic Energy Planning**. An effective energy strategy based on self-sufficiency, development of renewable energy resources and energy conservation that is actively implemented countywide through Climate Action Plans, ~~local~~ General Plans and the Redwood Coast Energy Authority's Comprehensive Energy Action Plan.	Staff recommend edit to tie Energy Planning to Climate Action Planning 	
				COMMENTS:		
A	**B**			**E-G2. Increase Energy Efficiency and Conservation**. Decreased energy consumption through increased energy conservation and efficiency in building, transportation, business, industry, government, water and waste management.		
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	**B**			**E-G3. Supply of Energy from Local Renewable Sources**. Increased <u>local</u> energy supply <u>from a distributed and diverse array of renewable energy sources</u> and providers available for ~~and~~ <u>local</u> purchases~~s~~ <u>and export.</u> ~~from a distributed and diverse array of local renewable energy sources and providers.~~	Staff recommended edit for clarity and to include export as a goal. 	
				COMMENTS:		
A	**B**			~~**E-G4. Local Management of Energy Supply**. Increased local control, management, and ownership of energy sources with greater diversification and competition among suppliers.~~	Staff recommended deletion to avoid redundancy with E-G3.	
				COMMENTS:		
A				**E-G5. Self-sufficiency in Energy Use.** ~~Move toward~~ Self-sufficiency in energy use, with maximum reliance on local renewable resources for local energy needs.		
				COMMENTS:		
				12.4 Policies		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
	B			**E-P1. Land Use and Development Review.** The County shall provide incentives for discretionary and ministerial development incorporating renewable energy sources, energy conservation and green building measures above mandated levels consistent with this Plan.	Staff edit to extend incentives to ministerial development. **Prog, IM-1,5**	
				COMMENTS:		
A				**E-P1. Land Use and Development Review.** The County shall adopt a residential and commercial energy conservation ordinance that establishes energy conservation incentives and performance standards exceeding state mandates for building construction, retrofit and sales.		
				COMMENTS:		
A	**B**			**E-P2. Oil and Gas Development.** Oil and gas development shall be permitted consistent with the following: A. The development is performed safely and consistent with the geologic conditions of the well site. B. New or expanded facilities related to such development are consolidated, to the maximum extent feasible and legally permissible, unless consolidation will have adverse environmental consequences and will not significantly reduce the number of producing wells, support facilities, or sites required to produce the reservoir economically and with minimal environmental impacts. C. Such development will not cause or contribute to subsidence hazards unless it is	**QJ, S-1,2,4**	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				determined that adequate measures will be undertaken to prevent damage from such subsidence.		
				COMMENTS:		
	B			**E-P3. Local ~~Management and Ownership of~~ Energy Supply.** The County shall support energy development projects <u>including biomass, wind, solar and ocean energy,</u> consistent with this Plan that increase local ~~management and ownership of~~ energy supply and decrease expenditures for imported energy.	Staff edits to place emphasis on support for projects that decrease the need for imported energy. **Pol, IM-2,5,7**	
				COMMENTS:		
A				**E-P3. Local Energy Supply.** The County shall support energy development projects including biomass, wind, solar and ocean energy, consistent with this Plan that increase local management and ownership of energy supply and decrease expenditures for imported energy.		
				COMMENTS:		
A	**B**			**E-P4. Transportation Energy Conservation ~~Revitalization and Reinvestment in Existing Resources.~~** Support revitalization and infilling of Urban Development Areas to reduce long-term vehicle miles traveled as an energy conservation strategy. ~~Favor rehabilitation and revitalization of older existing buildings over replacement when doing so would conserve energy resources.~~	Staff edited for clarity. **Leg, Pol, IM-2** 	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
A	**B**			**E-P5. Regional Energy Authority.** Recognize the Redwood Coast Energy Authority (RCEA) as the regional energy authority, which will foster, coordinate, and facilitate countywide strategic energy planning, implementation and education through a Comprehensive Action Plan for Energy. ~~Direct RCEA to administer the Comprehensive Action Plan for Energy.~~	Edited to introduce the Comprehensive Action Plan for Energy and eliminate redundancy with E-P6. **Prog, IM-2** 	
				COMMENTS:		
A	**B**			**E-P6. Comprehensive Action Plan for Energy.** The County shall assist in the implementation and align its energy strategy with the Redwood Coast Energy Authority (RCEA) Comprehensive Action Plan for Energy, as amended.	**Prog, IM-2** 	
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	**B**			**E-P7. County Energy Consumption.** The County shall reduce building and transportation energy consumption by implementing energy conservation measures and purchasing renewable energy and energy efficient equipment and vehicles whenever cost-effective. Conservation and renewable energy investments should be planned and implemented in accordance with and performance-based action plan and County Greenhouse Gas Emission Reduction goals.	New staff recommended policy on County energy conservation. **Prog, IM-3-4, S-8** 	
				COMMENTS:		
A	**B**			**E-P8. County Building Design Standards**. Design, construct and operate all new and renovated County-owned facilities to U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)"Silver" or better energy efficiency standards consistent with State Executive Order S-20-04.	New staff recommended policy on County energy conservation. **Prog, IM-3-4** 	
				COMMENTS:		
A	**B**			**E-P9. Electrical Transmission.** Promote capacity upgrades to main electric distribution lines to facilitate distributed renewable energy production and electricity export from the county.	New staff recommended policy on transmission capacity. **Pol, IM-2** 	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
A				**E-P10. Transportation Management Plans.** Major commercial, business, industrial, or mixed-use facility developments shall be required to submit a transportation management plan that addresses energy conservation measures such as connectivity to alternative transportation modes; preferential parking for carpools, vanpools, motorcycles, mopeds, and bicycles; shuttle services; alternative fueling stations; transit passes; bike lockers; and locker-room facilities. Management plans should include policies to encourage local employers to offer flex-time and/or shifting work schedules that minimize employees' impacts on peak hour traffic and provide incentives for employees to use alternatives to the single-occupancy automobile mode of travel.	**QJ**	
				COMMENTS:		
A				**E-P11. Energy-efficient Landscape Design.** Require energy-efficient landscape design in development projects, subdivisions, and in new and existing streets and parking areas in order to reduce impervious surfaces, minimize heat and glare, control soil erosion, conserve water, and promote pedestrian safety and vehicular traffic calming measures.	**QJ**	
				COMMENTS:		
A				**E-P12. Municipal Purchasing and Procurement**. Encourage the purchase and use of administrative supplies and building materials made from recycled materials and renewable resources whenever cost-effective (considering life-cycle costs). Follow principles of energy-efficient source reduction and resource recovery for County operations, and promote these principles in the community.	**Prog**	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
A				**E-P13. Water Efficiency.** Promote the efficient use of water in residences, businesses, industries, and agriculture by requiring water-saving plumbing and landscaping devices in new developments, plumbing-related remodels, or upon change of ownership.	**QJ**	
				COMMENTS:		
A				**E-P14. Incentives for Using Alternative Energy.** Provide incentives to encourage the use of renewable energy and environmentally preferable distributed energy generation systems in the county.	**Prog**	
				COMMENTS:		
A				**E-P15. Wind Energy Overlay Zone.** The County shall develop a wind energy overlay zone to protect potential wind energy sites identified as having "excellent" wind energy potential by the California Department of Water Resources in their Humboldt County Wind Resource Map (1985).	**Leg**	
				COMMENTS:		
				12.5 Standards		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	**B**	**C**	**D**	**E-S1. Oil and Gas.** A. Development associated with onshore oil and gas wells shall be conditionally permitted by a conditional use permit in agricultural, timber, rural lands, industrial general, and resource-related industrial land use classifications. B. A permit will be required for each drill site and a separate permit will be required for production facilities. Additional wells proposed for an approved drill site may be administratively approved provided that they can be accomplished within the limitations and conditions of the original use permit for the drill site.	**QJ**	
				COMMENTS:		
A	**B**	**C**	**D**	**E-S2. Application and Initial Study Information Requirements for Oil and Gas Energy Exploration or Extraction Projects.** California Environmental Quality Act (CEQA) applications for oil and gas exploration or extraction projects shall include the following: A. A plot plan for the entire area under lease or ownership, showing the relationship of the proposed facilities to ultimate potential development, and a map showing the relationship of contours, buildings, structures, and/or natural features. B. A description of the relationship of the proposed facilities to existing facilities. C. Procedures for the transport and disposal of all solid and liquid wastes to meet discharge requirements of the North Coast Regional Water Quality Control Board (NCRWQCB). D. Grading plans and procedures for minimizing erosion.	**QJ**	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				E. Where public views are affected by production facilities, landscaping plans and measures for minimizing visual impacts. F. Fire prevention procedures. G. Air emission control measures. H. Oil spill contingency procedures. I. For production facilities, a phasing plan for the staging of development, indicating an approximate anticipated timetable and production levels for the project. J. Procedures for the abandonment and restoration of the site, which provide for removal of all equipment; disposal of wastes; and re-contouring, reseeding, and planting to conform to surrounding topography and vegetation. K. Drill sites should generally not be established at a density greater than one per 80 acres. L. All solid and liquid wastes shall meet the discharge requirements of the NCRWQCB. M. Projects shall meet all applicable air quality regulations. N. All earthen sumps or other depressions shall be regraded to restore the area to its original condition.		
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	B	C	D	**E-S3. Wind Generating Facilities.** A. Unless allowed by right pursuant to California Government Code, Section 65892.13(f) as amended, wind generating facilities shall be a conditionally permitted use in all land use designations except "resource dependent" (MR). B. The following shall be considered in reviewing proposed wind generating facilities: parcel size, relationship to other structures, effect on potential down-wind sites, compliance with Uniform Building Code and national Electrical Code, rotor and tower safety, noise, electromagnetic interference, utility notification, height, liability insurance, and appearance and design. C. Findings necessary for project approval shall be: 1) The proposed use is not detrimental to the public health, convenience, safety, and welfare. 2) That the use of the property for such purposes will not result in material damage or prejudice to other property in the vicinity. 3) The project will not have a significant adverse effect on coastal resources, including wildlife qualities.	**QJ**	
				COMMENTS:		
A	**B**	**C**	**D**	**E-S4. Oil and Gas Pipelines.** For pipelines serving oil and gas facilities, the following shall apply: A. Pipelines should, where feasible, avoid sensitive habitat areas and archaeological sites and follow existing utility corridors where they are present. Active faults or other geologically unstable areas should be avoided where feasible, or be designed to	**QJ**	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				mitigate against such hazards. B. When avoidance of a sensitive habitat area is not feasible, effective mitigation measures shall be employed to minimize adverse impacts. Directional drilling shall be employed to avoid wetlands and riparian habitats, unless an independent engineering contractor selected by the County determines that to do so would not be feasible. C. All right-of-ways shall be regraded and revegetated to their original state. When a responsible agency identifies a degraded habitat along the proposed right-of-way, when it might be preferable to restore it to a condition other than its present state, said agency shall recommend plans to the lead agency for restoration of the habitat. The lead agency shall require restoration of the habitat as a condition of approval, unless a review of the public record indicates it would be more appropriate to do otherwise. D. All compressor, metering, or odorizing stations shall be visually and acoustically buffered with vegetation and other means as necessary. E. Above-ground pipelines should be sited to minimize visual impacts, when feasible. When an aboveground pipeline must be sited in a highly scenic area, it shall be visually buffered with vegetation and other means as necessary. F. For liquid carrying pipelines passing through important coastal resource areas including recreation, habitat, and archaeological sites and geologically unstable areas, segments shall be isolated by automatic shutoff valves. The County may determine whether spacing of automatic shutoff valves is required at intervals less than the maximum set by the U.S. Department of Transportation to protect sensitive coastal resources.		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
A	**B**	**C**	**D**	**E-S5. Electrical Transmission Lines.** A. Transmission line rights-of-way shall be routed to minimize impacts on the viewshed in the coastal zone, especially in highly scenic areas, and to avoid locations that are on or near habitat, recreational, or archaeological resources, whenever feasible. Scarring, grading, or other vegetative removal shall be minimized and revegetated with plants similar to those in the area. B. Where above-ground transmission line placement would unavoidably affect views, underground placement shall be required where it is technically and economically feasible, unless it can be shown that other alternatives are less environmentally damaging. When above-ground facilities are necessary, design of the support towers shall be compatible with the surroundings to the extent safety and economic considerations allow. C. Above-ground transmission lines should be sited so as to minimize visual impacts. D. Siting of transmission lines should avoid the crests of roadways to minimize their visibility on distant views. Where visual impacts would be minimized, lines should cross the roadway at a downhill low elevation site or a curve in the road. E. New major steel tower electrical transmission facilities should be consolidated with existing electrical steel-tower transmission facilities unless there are social, aesthetic, or significant economic concerns. F. Existing rights-of-way should be utilized for other related utilities to provide	**QJ**	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				consolidated corridors wherever such uses are compatible or feasible. G. Access and construction roads should be located to minimize landform alterations. Road grades and alignments should follow the contour of the land with smooth, gradual curves where possible.		
				COMMENTS:		
A	**B**			**E-S6. Consistency with Climate Action Plan.** The County's implementation of the Redwood Energy Authority (RCEA) Comprehensive Action Plan for Energy shall be consistent with the Board-adopted Climate Action Plan.	**Prog** 	
				COMMENTS:		
A	**B**			**E-S7. Solar Access Protection**. – Proposed structures and landscaping associated with planned unit developments and/or subdivisions that create five (5) or more new parcels shall be designed and located to avoid blocking views and solar access from other properties to the maximum extent feasible. The lot size, configuration, and proposed building envelope in a subdivision or planned development shall be oriented to ensure that no additional shadows will be cast on the south side ~~or roof~~ of an existing building between the hours of 10:00 a.m. and 2:00 p.m. on December 21. A shade projection map~~shadow analysis~~ shall be required showing the ~~identifying proposed~~ height and orientation of existing and proposed buildings and the slope of land ~~to determine~~ and that identifies the length of shadows projected.	New staff recommended policy to support existing ordinance. **QJ, IM-21** Modifications made to be consistent with our existing shading ordinance language	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
				12.6 Implementation Measures		
A	**B**			**E-IM1. Alternative Energy Use**. Develop or modify regulations that eliminate obstacles to alternative energy use. Regulations may include, but are not limited to: A. Allowing height exceptions for solar equipment. B. Allowing alternative heating and cooling systems components such as collectors, shading louvers, or reflectors to project into yards in a manner similar to cornices and canopies. C. Defining solar heating systems and cogeneration facilities as accessory uses. D. Preventing planned development covenants, conditions, and restrictions (CC&Rs) from unreasonably restricting alternative energy systems.	**Leg** 	
A	**B**			**E-IM2. Comprehensive Action Plan for Energy.** Seek funding and support efforts to implement the Redwood Coast Energy Authority (RCEA) Comprehensive Action Plan for Energy.~~, as amended.~~	**Prog** 	
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	B			**E-IM3. County Energy Consumption Reduction**. Develop a comprehensive program to reduce County energy consumption in operations including: public buildings and facilities, street lighting, vehicle fleet management, equipment procurement, and employee energy awareness program.	**Prog** 	
				COMMENTS:		
A	B			**E-IM4. Install County Systems**. Pursue the installation of cost-effective conservation measures, renewable energy systems, cogeneration systems, and distributed energy systems in County facilities.	**Prog** 	
				COMMENTS:		
A	B			**E-IM5. Wind Energy Development**. Develop wind-permitting guidelines for residential and small commercial-scale wind energy systems. Adopt and modify, as appropriate, the guidelines established in California State Law AB 1207. Educate the public about the benefits of small-scale wind energy systems.	**Prog** 	
				COMMENTS:		
A	B			**E-IM6. Energy-conserving Landscaping**. Consider the use of natural and drought-resistant planting materials and efficient irrigation systems and the siting of trees to reduce energy demand in the preparation of the County landscaping ordinance.	**Prog** 	
				COMMENTS:		
A	B			**E-IM7. Small Hydroelectric Development**. Support local efforts to develop cost-effective, environmentally sensitive, small-scale, run-of-the-river hydroelectric facilities in the County.	**Pol** 	

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
				COMMENTS:		
A	**B**			**E-IM8. Energy Efficiency Standards**. Develop and implement energy-efficiency standards for subdivision, mixed use, infill, and planned unit development that shall incorporate Green Building standards, which may include compliance incentives such as tax credits, fee reductions, or faster-track permitting for silver rating or higher compliance with Green Building standards.	New staff recommended implementation measure to support policy EP-1. **Prog** 	
				COMMENTS:		
A	**B**			**E-IM9. Develop Incentives for Private Sector**. Develop incentives to encourage the installation of cost-effective energy efficiency measures, distributed generation, and solar electric and solar heating systems in all new construction and building retrofits. Incentives may include: density bonuses, fast-track permitting, fee reductions, expedited low-cost approval of standardized designs, property tax exemptions, sales tax rebates, and award programs that recognize builders and developers for well-designed systems.	New staff recommended implementation measure to support policy EP-1. **Prog** 	
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A	**B**			**E-IM-10. County Energy Efficiency and Renewable Energy Improvements Plan.** The County shall develop and maintain a performance-based action plan to guide the implementation of energy efficiency and renewable energy improvements in county operations.	New staff recommended implementation measure to support EP-7. **Prog,** 	
				COMMENTS:		
A	**B**			**E-IM11. County Facility Efficiency Fund**. Establish a "County facility efficiency fund" to support implementation of this Energy Element. The fund would receive up to 50% of the County's monetary savings from improved municipal energy efficiency and conservation practices. The estimate of monetary savings will be based on the likely energy costs that would have been incurred had the energy efficiency measures and/or conservation practices not been implemented.	New staff recommended implementation measure to support policy EP-7. **Prog** 	
A				**E-IM12. Assess Existing Regulations**. Assess the existing subdivision, zoning, and building code implications associated with the potential development of renewable energy and distributed energy generation facilities and related electrical transmission lines.	**Prog**	
				COMMENTS:		

Plan Alternative				Chapter 12 Energy Element	Staff Remarks/ Implementation	Position R,M,D
A				**E-IM13. Fair Regulations**. Develop a clear permit process to provide for the installation of renewable energy and distributed energy generation systems. Identify zones where renewable energy and distributed energy generation facilities will be allowed as a permitted use. Identify small-scale systems that meet annual onsite energy needs, and that would not require a use permit. Zoning regulations should address the following types of renewable energy and distributed energy generation facilities: commercial wind farms, wave and tidal energy facilities, biomass energy facilities, biogas energy facilities, small-scale hydroelectric facilities, cogeneration and distributed generation facilities, and solar electric and solar heating facilities.	**Prog**	
				COMMENTS:		
A				**E-IM14 Energy Conservation and Green Building Ordinance.** The County shall adopt a residential and commercial energy conservation and green building ordinance that establishes energy conservation incentives and performance standards exceeding state mandates for building construction, retrofit and sales.	**Prog**	