

Eastern Region Energy-Water Summary Overview for Group B

Problems	Needs	Solutions
<b>ENERGY SUPPLY</b>		
Energy and water supply and demand	Factor water into energy planning Ensure adequate supply of water for long-term energy needs and ensure supply of energy for water needs.	Conduct international surveys of technologies and planning systems; disseminate information Identify and evaluate existence of integrated energy/water planning models. Identify gaps in these models. Develop new planning models that integrate long-term energy-water planning
Power plant cooling technologies	Explore technologies that involve low water use and use of impaired water  Decrease demand per unit for both water and energy	Increase utilization rate of off-spec (impaired water) Include cost per unit and alternative sources  New technologies and policies for grey water use
<b>WATER SUPPLY</b>		
Economics ( Hydrogen economy elements and the economics of extraction)	Establish proper or correct value of water Lower costs	Create framework for market mechanisms for water trading to encourage energy industry to participate in environmental improvements Low income support
Water Conservation Technologies	Knowledge of long-term hydrologic cycle	Characterize water resources in terms of quality, location, productivity with respect to needs of energy industry Develop efficient technologies
Ground water depletion	Decrease demand on surface water  Balance competing uses between sectors (e.g., agriculture, energy, recreation, urban development)	Involve River Basin Commission in DOE Energy-Water planning process  Identify gaps in data and knowledge

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