

KEY ISSUES	DURATION OF ACTIVITY	ROLES AND RESPONSIBILITIES	MAJOR EXISTING GAPS	PRIORITIES AND NEEDED ACTIONS HIGH/MED/LOW
<p>Comparing Lifecycle Effects of Energy Generation Options</p>	<p>- looking across all energy sector impacts, water/air/climate/GHG</p> <ul style="list-style-type: none"> - Highlighting other environmental benefits of wind (not just high \$ technical study) - Timing of studies- would be preferable to have it done in the next couple of years. - Europe has done this, but it has spent many years and a lot of money doing so. 	<p>EPA? (may not read credible to a portion of audiences) – does not have RE projections</p> <p>NAS- Energy Futures tracking, attempting to be a comparative analysis?</p> <p>DOE- has some studies started (Silverman/Cadogan), but would report get concurrence</p> <p>“Capacity expansion models” = EPRI [MERGE], PNNL [Mini-Cam], EIA, MARKAL -2050, WinDS]</p> <p>Contractor with International reputation</p> <p>Private foundation (Pew Center for Climate, Joyce)</p> <p>State Energy Funds (NYSERDA, CEC)</p>	<p>Are there existing information resources available DOE could put together to give NAS (Extern E)</p>	<p>HIGH</p>
<p>Researching Wildlife and Habitat Effects</p>	<ul style="list-style-type: none"> - Bat and Other potential species impacts - Identify effective mitigation strategies - Research on deterrents - Tie into transmission planning studies - Capturing positive implications of GHG reductions specific to wildlife and habitat 	<p>AWWI- 4 initiatives (mapping, research, biodiversity banking, education outreach)</p> <p>NWCC- consensus based, broad constituency, established network</p> <p>AWEA-</p> <p>DOE- (collaboration across programs)</p> <p>NGO’s (Audubon, Sierra)</p> <p>USFWS, USGS, USDA</p> <p>State Fish and Environmental Agencies</p>	<p>Marine wildlife and ecosystem impacts of offshore wind and ocean energy</p> <p>Implications of GW-scale project</p>	<p>Continued support</p> <p>Medium priority now, monitor for need to change</p>

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	<ul style="list-style-type: none"> - Duration- ability to make decisions on best available information within a couple of years, but these activities will be ongoing and issues will change 		Engaging independent transmission owners to study wildlife impacts/ habitat fragmentation	
Defining Risk & Benefits Risk mitigation Structured Decision Making	<ul style="list-style-type: none"> - Review of Environmental and Siting risks in new design criteria - Defining Categories of Risk - Deterrents - What the actual risks of developing a project are, what structures are available to capture these - Defining Risk Framework for All categories (human, wildlife, economic, property values) 	State Government Agencies (e.g., CEC) National Governors Association NWCC- funded for past 3 years in defining risk (probability of impact) DOE- NGO's (Audubon, Sierra) USFWS, USGS, USDA Robin Gregory/Energetics	What are the techniques and siting processes that have been used in the wind industry and how do they differ from other energy sources?	High
Engaging National Leadership	<ul style="list-style-type: none"> - Getting policy decision makers to look at diversity of information that is available, employ structured decision making - Need for Human Resources capabilities to 	State Agencies CESA NGA NARUC NASEO DOE working with Federal Agencies AFWA	Not enough conversation with the right people with what the issues are	High, but not DOE's alone. Engage the National organizations to communicate with their audiences

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	<ul style="list-style-type: none"> - do this - National leadership should provide educational materials to inform States 			
Developing Siting Strategies	<ul style="list-style-type: none"> - Best Practices development, AWEA Siting Handbook - Wildlife - Air Space and Radar issues - Property Value/Aesthetics/Viewshed Impact Studies - REZ (low risk areas) 	DOE- develop master plan in next year as to how the implementation of siting 20% wind will be done DOE working with Federal Agencies MMS/EU for offshore ?relationship with transmission siting	Collaborative siting strategies/processes	Fits in with part of the siting and risk strategies High
Addressing Public Concerns	<ul style="list-style-type: none"> - Engaging Communities that have legitimate concerns. Filling in the gaps of missing information - Engaging Environmental, Public Health, and Labor Communities - 		Baseline research on public concerns Ensure monitoring of existing sites that are well sited, and tell	Ongoing, monitor for developing issues with greater wind penetration. Moderate for DOE High for wind industry

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DOE ENVIRONMENTAL AND SITING PROGRAM	
CURRENT DOE ACTIVITIES	STATUS
National Wind Coordinating Collaborative, Wildlife Working Group	
– Measure and metrics (nocturnal)	Completed
– Update M&M (1999)	FY08 (with a risk decisionmaking training session)
– Update bird and bat factsheet	FY08
– Updating mitigation toolbox	FY08
– Wildlife research meeting	planning FY08/meeting FY09
– Grassland Shrub Steppe Species Collaborative	Prairie chicken research – current and ongoing (FY06 – FY09)
– Complete research topics white paper	FY08
– Complete matrix on probability of impacts	FY08
– Launching new habitat subgroup	FY08
Bats and Wind Energy Cooperative	<ul style="list-style-type: none"> – Research plan approved and being implemented (FY08 and beyond) – Awaiting results of BWEC workshop in January 2008
Participation in USFWS Guidelines with FACA	First meeting scheduled in February 2008 FY08/FY09 as needed
Radar interference – Analysis and mitigation strategies	<ul style="list-style-type: none"> – Spearheaded interagency siting work group on radar – Analyses at INEEL
Using Artificial Intelligence to differentiate biological from non-biological signatures in NEXRAD database	FY08
Offshore wind and ocean technologies: environmental effects and regulatory framework	<ul style="list-style-type: none"> – Completed white paper on offshore wind summarizing peer reviewed studies – Participating in IEA subtasks – Collaborating with MMS – Participating in AWEA offshore working group

One-day workshop on risk analysis framework at NWTC with targeted audience	Workshop held in October 2007 at NWTC (Energetics)
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POTENTIAL FUTURE ACTIVITIES	STATUS
Better understanding of risk decisionmaking/uncertainties/adaptive management/workshop – FY08	Evaluation phase
Cost-sharing on specific American Wind Wildlife Institute efforts	Start-up on FY08
Cost-sharing to support additional NWCC subgroups and/or initiatives:	TBD
– Sage grouse	Evaluation phase
– Costs and benefits of wind	Evaluation phase
Cost-sharing on further bat impact research	Awaiting results of BWEC workshop
Offshore wind and ocean impacts	Synergy between the IEA subtasks
Collaboration and/or follow-up with National Academy of Sciences Report	TBD

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