

Summary of Renewable Energy Survey Results

How many years have you been working in a renewables field or in your current position that now deals with renewables?		
Answer Options	Response Frequency	Response Count
> 10 years	34.5%	131
< 3 years	30.0%	114
3-5 years	21.1%	80
5-10 years	14.5%	55
<i>answered question</i>		380
<i>skipped question</i>		3

Please indicate what type of renewable you work with (check all that apply).		
Answer Options	Response Frequency	Response Count
Solar	61.4%	224
Wind	52.6%	192
Geothermal	51.0%	186
Biomass	31.2%	114
Hydroelectric	20.8%	76
Tidal	6.3%	23
<i>answered question</i>		365
<i>skipped question</i>		18

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Please indicate how you are involved in renewable energy work.		
Answer Options	Response Frequency	Response Count
I work for a government agency that deals with	38.5%	145
I am a consultant	23.3%	88
Other	17.5%	66
I am a developer	7.4%	28
I work for a company that produces renewable energy	7.4%	28
I work for a utility company	5.8%	22
	<i>answered question</i>	377
	<i>skipped question</i>	6

Other

- 1 Researcher/GIS Specialist
- 2 I am launching a biofuels farm in Costa Rica
- 3 Also developer of larger PV systems
- 4 Integrator for Commercial, Residential and Gov't
- 5 Professor
- 6 student in geothermal
- 7 I work for a state agency that reviews renewable energy documents and comments on them
- 8 Please note that my profession is with GeoExchange, not direct high temp geothermal
- 9 Tax Partnership Financing
- 10 Engineering, Design, and Consulting
- 11 Engineering
- 12 Service company-Well Construction
- 13 financial advisory
- 14 Banker
- 15 Education
- 16 Engineer for geothermal electrical generation company
- 17 Work with environmental consulting companies to produce EIR/EIS documents and provide field consulting services
- 18 Environmental firm that consults on renewables
- 19 Senior debt lender
- 20 attorney
- 21 Executive Director of Canadian Geothermal Energy Association
- 22 investor
- 23 Currently a consultant; previously with a gov't agency
- 24 Investment Banking
- 25 I worked for wastewater utilities that dealt with biomass
- 26 IPP
- 27 university researcher
- 28 Geothermal power producer
- 29 we design and install ground source systems
- 30 Emergency Response Contractor
- 31 Investor in renewable energy projects
- 32 Clean energy/climate change think tank
- 33 electrical Engineer
- 34 Professor / researcher
- 35 off the grid homeowner

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- 36 university research
- 37 I work for a company that sells VFDs to Ethanol cogeneration power plants
- 38 Attorney and advocate
- 39 I have owned my own renewable energy companies for 20 years
- 40 Research organization utilizing and making systems
- 41 Financial services
- 42 I have not worked with renewable energy
- 43 Production Manager for a Geothermal Facility
- 44 work for non-profit environmental organization that promotes renewable generation
- 45 market research and publishing
- 46 Economic Development Organization
- 47 university program
- 48 Author of books on the subject
- 49 I am a design engineer
- 50 recruitment
- 51 I do not work on renewables
- 52 non-profit
- 53 I work for the world body for the hydropower sector
- 54 lawyer
- 55 Attorney
- 56 Trying to find a job in Renewables
- 57 I am an attorney
- 58 R&D
- 59 cultural resources consultant
- 60 Installer/EPC Contactor
- 61 economic research
- 62 I work for a company that sells and installs solar panels
- 63 Project logistics
- 64 Electrical Contractor
- 65 Market research analysis
- 66 We are Consultants, Developers, & O&M company
- 67 Design/Build Contractor
- 68 Work for a EE & RE group of companies that include solar installation
- 69 equipment for solar cell and module manufacturing
- 70 Lawyer for project developers and operators
- 71 Battery manufacturer

Summary of Renewable Energy Survey Results

What is the average size of your projects?		
Answer Options	Response Frequency	Response Count
30-100 MW	35.7%	10
< 5 MW	25.0%	7
> 100 MW	25.0%	7
5-30 MW	14.3%	4
<i>answered question</i>		28
<i>skipped question</i>		355

Which statement best describes your day-to-day activities?		
Answer Options	Response Frequency	Response Count
Other	31.0%	9
Scientific / Technical	24.1%	7
Operations	17.2%	5
Marketing	13.8%	4
Finance	13.8%	4
<i>answered question</i>		29
<i>skipped question</i>		354

Other

- 1 Permitting and development
- 2 government relations
- 3 Business Development
- 4 Development
- 5 almost everything, including management
- 6 management of my companies
- 7 regulatory
- 8 permitting
- 9 Project Development
- 10 management
- 11 All of the above.
- 12 development

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Are your projects typically on public or private land?		
Answer Options	Response Frequency	Response Count
Private	58.6%	17
Public	41.4%	12
<i>answered question</i>		29
<i>skipped question</i>		354

Why did you choose to site your project on private land? Please pick all that apply.		
Answer Options	Response Frequency	Response Count
Location of resource	56.3%	9
Easier to comply with environmental laws	43.8%	7
Access to transmission	25.0%	4
Cost	12.5%	2
Schedule	12.5%	2
Other	12.5%	2
<i>answered question</i>		16
<i>skipped question</i>		367

Other

- 1 Rooftop projects
- 2 end customer choice and involved in smaller, distributed power
- 3 My projects, except one, are all on state or federal land in Alaska.

Why did you choose to site your project on public land? Please pick all that apply.		
Answer Options	Response Frequency	Response Count
Location of resource	83.3%	10
Access to transmission	41.7%	5
Cost	33.3%	4
Schedule	8.3%	1
Easier to comply with environmental laws	8.3%	1
Other	25.0%	3
<i>answered question</i>		12
<i>skipped question</i>		371

Other

- 1 Public agency mandates for efficiency and renewables
- 2 No private land available with resource in these areas.
- 3 Wastewater Treatment Plants are the biggest user of energy in CAL

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What level of government do you work for?		
Answer Options	Response Frequency	Response Count
Federal	69.6%	103
State	19.6%	29
Local	10.8%	16
<i>answered question</i>		148
<i>skipped question</i>		235

With which Federal agency do you work?		
Answer Options	Response Frequency	Response Count
Bureau of Land Management	51.5%	51
Bureau of Reclamation	10.1%	10
Energy Department (DOE)	8.1%	8
Other	8.1%	8
Forest Service	6.1%	6
Environmental Protection Agency	5.1%	5
Defense Department (DOD)	4.0%	4
National Park Service	3.0%	3
Homeland Security	2.0%	2
Fish and Wildlife Service	1.0%	1
NOAA	1.0%	1
Bureau of Indian Affairs	0.0%	0
<i>answered question</i>		99
<i>skipped question</i>		284

Other

- 1 Minerals Management Service
- 2 USDA Rural Development
- 3 National Capital Planning Commission
- 4 NASA
- 5 M K Udall - US Institute for Environmental Conflict Resolution
- 6 Rural Development with Depart. of Argiculture
- 7 US Navy
- 8 USDA Rural Development
- 9 DOA-Rural Utilities Service
- 10 DOT
- 11 US Air Force
- 12 Department of Transportation

Summary of Renewable Energy Survey Results

Based on all you know, which energy sources are commercially viable at present?					
Answer Options	Not viable	Somewhat viable	Very viable	Rating Average	Response Count
Hydroelectric	7	55	258	2.78	320
Fossil Fuels	15	45	258	2.76	318
Wind	5	120	212	2.61	337
Geothermal	8	114	206	2.60	328
Solar - Rooftop (placing solar on existing building rooftops)	24	147	159	2.41	330
Biomass	29	185	94	2.21	308
Solar - Utility (utility-scale power plants)	45	170	113	2.21	328
Tidal	150	128	12	1.52	290
<i>answered question</i>					352
<i>skipped question</i>					31

Based on everything you consider relevant, what is the overall environmental impact of the following energy sources?							
Answer Options	Low Impact		Moderate Impact		High Impact	Rating Average	Response Count
Fossil Fuels	0	5	34	63	226	4.55	328
Nuclear	24	54	82	78	92	3.48	330
Hydroelectric	39	58	112	78	42	3.08	329
Biomass	34	63	174	35	16	2.80	322
Solar - Utility (utility-scale power plants)	68	106	92	42	26	2.56	334
Wind	53	126	101	40	17	2.53	337
Tidal	67	110	95	24	6	2.31	302
Geothermal	104	113	87	21	5	2.12	330
Solar - Rooftop (placing solar on existing building rooftops)	196	97	30	8	5	1.60	336
<i>answered question</i>							348
<i>skipped question</i>							35

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What are the biggest hurdles to the success of renewables that you work with?					
Answer Options	Not an issue	Moderate issue	Significant issue	Rating Average	Response Count
Financing	12	104	208	2.60	324
Transmission access	29	112	182	2.47	323
Competition with less expensive fossil fuel sources	39	100	185	2.45	324
Permitting process on federal lands	45	145	115	2.23	305
Regulatory uncertainty	46	168	107	2.19	321
Lack of political support	78	152	94	2.05	324
Lack of technology	126	145	48	1.76	319
Lack of the renewable resource (e.g., not enough wind)	137	138	41	1.70	316
Other (please specify)					46
<i>answered question</i>					334
<i>skipped question</i>					49

Other

- 1 Least cost requirement keeps coal, nuclear and natural gas as the preferred alternative in most IRPs.
- 2 We can make ground source heat pump systems work anywhere.
- 3 BLM is a group that obstructs progress
- 4 aesthetics, impacts on wildlife
- 5 Permitting process on private lands is also significant.
- 6 I do not work directly on renewable energy projects and therefore do not feel I can answer this question adequately.
- 7 People don't understand or misunderstand about geothermal. We need education!
- 8 Permitting process on state-owned lands.... Moderate issue.
- 9 Lack of reliability for solar and wind.
- 10 People trying to make money and really do not believe in the product.
- 11 geothermal drilling risk
- 12 Public opposition and environmental interveners
- 13 public and environmental group resistance to projects
- 14 Recovering sufficient materials to be recycled or utilized for renewable resources.
- 15 Institutional inertia coupled with perception that renewables (not including nuclear), even en-total, cannot supplant conventional sources.
- 16 Technology is an issue primarily for tidal power. Not a big issue for other categories.
- 17 my talks with the financing community have made it clear that there is plenty of money, but that it amazingly difficult to finance in an uncertain regulatory environment.
- 18 geothermal has a high front end cost and risk issue
- 19 Needed changes in consumer habits is a moderate issue.
- 20 regional or national cultural background; traditional fuel sources utilities interests;

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- 21 consumer buy in seems to be a hurdle that prevents renewable projects from being considered as viable and the inability to battle institutional lobbies, such as fossil fuel companies.
- 22 acceptance of new solutions
- 23 accessibility to source (biomass)
- 24 For hydropower: Lack of water. Lack of suitable sites. Environmental impacts at new sites. Cost.
- 25 I have not worked with renewables.
- 26 some of these are cyclical: financing & govt policy
lack of carbon cost
- 27 I am worried about an accurate environmental impact assessment being completed. I am worried that no one will coordinate transmission of power on a nationwide level and that this may result in many unneeded powerlines or in powerlines not built large enough to handle future capacities therefore needing to build more lines in the future.
- 28 All renewables are significantly different so these responses are poor averages at best. My view is the biggest hurdle for wind and solar for grid electricity is electricity storage. We can't change the energy supply issues (variability), we can't store the input energy (wind, solar radiation - we can store the heat) but if we could store the electricity they would both stand a much better chance.
- 29 maintenance and sustainability of the equipment in remote and sensitive setting
- 30 The NIMBY effect (especially with utility scale wind generation). Water requirements of utility scale solar generation.
- 31 lack of manuf. capacity - wind
- 32 Definition of biomass in RFS and proposed legislation
- 33 Cost of competing fuels or sources of electricity is the largest factor in the use of renewables. This is very location-dependent, but renewables can be promoted with regulatory policies like net metering, feed-in tariffs, access to transmission, ...
- 34 Environmental impacts for some resources
- 35 Enviro-politico concern in the West/North. Sustainability in the East/South.
- 36 lack of clear, unbiased, accurate information about the pros and cons of the various energy sources. Because there are parties with vested interests supporting each energy type, there is a indecipherable din of competing claims and criticisms.
- 37 Free Market economy - fossil fuels are still most competitive on BTU basis.
- 38 Several of these are linked i.e. there is ample wind and solar resource available but frequently it is either not near the load center or NIMBY require difficulty to site new transmission facilities.
- 39 I believe that solar should be on every house and should be required for all new construction. This destroying miles of public lands to put out a solar array is not necessary when you could use mall parking lots, etc.
- 40 Unknown environmental impacts
- 41 Newly recognized environmental impact. For example, solar and wind projects (and associated transmission) may result in fragmented habitats that can be difficult to mitigate.
- 42 utility opposition
- 43 Storage to permit load balancing
- 44 Risk perception
- 45 scientific uncertainty of renewable energy impacts, relative to conventional fuel energy sources. This uncertainty is increasingly complicating permitting processes (regardless of private or public lands), financing, regulatory engagement, and political support.
- 46 state and local permitting on private lands

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Are renewable energy projects delayed for unreasonable regulatory reasons?		
Answer Options	Response Frequency	Response Count
No	57.0%	180
Yes	43.0%	136
Please describe		101
<i>answered question</i>		316
<i>skipped question</i>		67

Description

- 1 Costa Rica imposes heavy taxes on most imports, which makes renewable energy even less cost-competitive.
- 2 Varies all overtr from no delays to significant delays, e.g. the County of San Deigo requires a Major Special Permit for PV, same as nuclear and coal.
- 3 Takes too long for the USFS and BLM to process NEPA documents.
- 4 The body of knowledge that could be used to define appropriate study and survey parameters to determine impact mitigation is excessively uneven, if they are even done.
- 5 Multiple Agencies involved in the environmental review processes associated with certain types of projects. NREL review of technical feasibility is not timely enough.
- 6 NIMBY for wind; Ignorance for geothermal.
- 7 For solar, the California Solar Initiative (CSI) is a significant hurdle for commercial scale facilities. However, it appears that recently enacted legislation is beginning to reduce the CSI issues.
- 8 Non-sense permitting in many states to justify the existence of bureacracies and people who provide absolutely nothing in the way of useful value to this country, the economy or future of this country
- 9 Slowness of Federal Geothermal lease sales
- 10 Meaningless regulations over meaningless items, such as PM-10 out of cooling tower when surrounded by a dust bowl. H2S levels when the Salton Sea emits 100000's of times more H2s
- 11 Yes, some are, some aren't. Micro hydro seems to be the worst. The red tape is outrageous.
- 12 some ferc and environmental permitting regulations and processes are interminable and overly papered and processed
- 13 I work more on the feasibility end of things, and don't have the best view of regulatory delays. I know permits can take a long time.
- 14 Some of the regulatory delays seemed to be political
- 15 Unreasonable opposition to transmission and some leasing and permitting without recognition of alternative (i.e. more fossil fuel power)
- 16 BLM permitting process is too long, Forest Service even worse
- 17 Back log in BLM permitting both for project site and transmission.
- 18 Not unreasonable to require data to quantify impacts. Collecting data takes time.

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- 19 The fact that renewable energy projects have much lower environmental impacts than fossil fueled projects, as well as the fact that global warming increases while renewable projects are delayed in permitting, should be observed. At the rate California is going, we will soon find ourselves in another energy crisis, building gas plants as fast as we can, at any price.
- 20 Can not get transmission service in a timely manner
- 21 I do not work directly on renewable energy projects and therefore do not feel I can answer this question adequately.
- 22 Not in my view, but they often are in the developers view
- 23 With respect to geothermal, regulators need a better understanding of the impacts, which are temporary. Need a holistic approach, a regulatory clearinghouse.
- 24 Not unreasonable, but process should be streamlined and/or accelerated.
- 25 Saga grouse and fish
- 26 No political or R&D impetuous to overcome environmental roadblocks to reasonable development.
- 27 If anything, they are getting a better "shake." The fact that there are delays should tell you more about the cumbersome regulatory process than anything else.
- 28 Don't know
- 29 Uncertain
- 30 often misunderstood environmental impacts
- 31 Regulatory requirements for renewable is a dynamic process and the regulations are not keeping up with the knowledge gained from the impacts that are occurring from renewable development. Still a lot of unknowns as renewable resources are being proposed and developed. Regulators need to be more proactive than reactive.
- 32 Difficult decision for me because I have been doing EIA for 34 years. EIA could be more streamlined but some evaluation of the balance of resource use is necessary.
- 33 Renewable energy projects are subject to the same regulatory requirements as other projects. I do not see a bias against renewables, but a general difficulty in approving any energy-related action.
- 34 Federal agencies go overboard with process, analysis, and "reinventing the wheel". They are often afraid to make decisions, even small decisions. The various federal, state, and local agencies often don't work well together and each individual agency seems to require their own layer of bureaucracy and will not work with one another to streamline or overlap processes. Fed. agencies tend to be "anti-development" and they forget about the multiple use concept; often have inexperienced (even incompetent) people responsible for or working on projects; individuals often have personal hidden agendas. Fed. agencies also try to get as much money as they can from the proponents to fund their programs and make proponents go through unnecessary hoops-- all the while the proponent knows if they disagree or question anything the project will certainly go nowhere.
- 35 Sometimes a lack of understanding by regulatory agency on how to apply guidelines or compliance measures.
- 36 Federal geothermal leasing and transmission rights-of-way development timelines
- 37 Lengthy EIS process when federal lands are involved. Opposition to projects results in delay, appeals and litigation.
- 38 The regs are there for a reason, although they could be streamlined.
- 39 I think that is the perception, but perhaps it's just a lack of knowledge or experience in dealing and complying with regulatory requirements.
- 40 extensive bird (3 years) and bat studies without accepted methodologies or an endpoint

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- 41 long permit times
- 42 Federal Agencies are over-protective of federal lands regarding wind development.
- 43 Regulators are afraid to make a decision without full buy-in by all parties. If we are serious about renewables it cannot be a consensus decision because someone will always object.
- 44 Regulatory process is often too slow and complicated
- 45 Certain states have rules and regs that extend the process beyond what a reasonable person would consider reasonable. (Like California)
- 46 Until now, no system for permitting of off-shore wind, tidal
- 47 Lack of defined process for BLM land development greatly slows solar project development.
- 48 Too much political pressure from oil companies.
- 49 More than warranted.
- 50 Local and state officials uncertain how to distinguish benefits and constraints of re project. Unfamiliar with technologies.
- 51 No more so than other projects. For any other types of projects on Federal land it would be the same.
- 52 In certain markets, regulatory parameters lead to excessive cost/delay in the permitting process.
- 53 Just the opposite. Due to the present zeitgeist, they are often rushed through without proper consideration of all factors.
- 54 Local permitting can be a HUGE roadblock.
- 55 delays are a result of federal land leasing issues
- 56 No more than for other big energy projects...but on federal land this means the NEPA process, which is subject to endless manipulation by special interest groups.
- 57 Compliance with NEPA can be very time consuming. An EIS can take 4+ years.
- 58 Federal and state licensing processes that are essentially duplicative.
Public lands have the weak spot of NEPA process that allows lengthy legal procedural intervention
- 59 Just because it is "renewable" does not mean there are not significant negative effects. Regulation is especially important early on, when we are still learning. Less regulation is not the only way to speed the process. The government could do a lot to work faster/smarter even within existing regulations.
- 60 If a Federal agency is given enough lead time it is possible to build a project area that includes private, State and Federal properties. When going through the Federal/ State process it is crucial to mitigate issues that Federal agencies are required to protect. In some cases it just takes a small adjustment to (eg a power transmission line) avoid critical environmental impacts.
- 61 I have not worked with renewables so please consider this response merely my opinion.
- 62 Grouse issues
- 63 Access to BLM lands for geothermal exploration and transmission.
- 64 Home owners, businesses, and govt. buildings cannot implement solar energy programs effectively with the mandated restrictions place upon our local electric utility.
- 65 renewable energy projects like other energy projects can -- and often do -- have significant environmental impacts. to obtain and retain public support, it is important that these projects and any associated necessary transmission be carefully planned and fully mitigated.
- 66 Federal permitting

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As a project manager at a federal land management agency, the biggest delay that I've experienced is due to staff (resources specialists such as cultural and wildlife) who do not like the project so throw up every road block they can and do so at their supervisor's urging.

68 Not in our experience.

69 A major policy debate is finally occurring in this country to discuss the trade-offs that will need to be made between environmental and economic priorities.

70 Fossil fuel projects are delayed much more unreasonably than renewable projects.

71 Don't know for sure - I suspect it is used as an excuse. The really problem is that most RE is not competitive with better existing technologies.

72 Too much listening to a vocal few and not enough credit given to the silent majority

73 Poorly thought out environmental Issues driven by perceived impacts rather than actual impacts.

74 I do see enormous hurdles of regulatory oversight in permitting on public lands and lands administered by the Forest Service because of NEPA, not that that's bad because if its a Federal action it must be analyzed in accordance with that great law. However, it seems like there may be an avenue that could be created to convey lands for generating renewable energy so that the Federal Government is not the landlord. That doesn't mean careless divestment of lands for that purpose, just a careful review of which lands would be more suitable to meet the energy demands of the public, similar to the planning efforts for what are determined to be lands suitable for disposal under the BLM and Forest Service's planning efforts with appropriate analysis under NEPA. The downside of this proposal would be the lack of revenue of fair market rent that would go into the treasury, but given the huge workload in permitting and oversight, including bonding requirements to ensure that once the permit is up the land is reclaimed, this should be given due consideration at least in some circumstances.

75 Many delays are for good reasons; some delays are extended to unreasonable lengths that cost time and money, which may deter some proponents.

76 if you mean regulatory=permitting/blm/fs

77 Multi-agency permitting is laborious and time-consuming.

78 It depends on siting. Throughout our process, we've intentionally avoided federal land because of concerns of opening a Pandora's box of regulations that could stall a project for years and consumer much needed capital.

79 They are delayed but typically due to lack of staff resources, lack of staff expertise, and inadequate application of the NEPA process, Section 7, Section 106, etc.

80 Cape Wind for example. Or the fights over the siting of transmission lines... Or the opposition to hydroelectric power - hydro is long-term, cheap, pollution-free power, but many people do not want to see change in the natural environment.

81 E.g. The EU has ratched up requirements for large hydro participation in the EU ETS out of line with UNFCCC CDM. UNFCCC current CDM framework currently excludes large hydro by crude stricture designed to address GHG emission uncertainty.

82 This is complicated and does not permit a yes/no answer

83 we need faster track permitting and environmental impact assessment for renewable energy installations.

84 Permitting process is time consuming and is the responsibility of federal agencies that do not have enough flexibility and staff to permit fast and effectively.

85 There are a lot of vested interests related to other energy sources and theirs positions of power.

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- 86 Transmission access is a big delay but frequently not a regulatory reason.
- 87 Nimbyism and environmental extremists stifle the energy source and the transmission, in some cases for decades.
- 88 Interagency coordination and NEPA are huge hurdles for development.
- 89 People forget that there is wildlife that is significantly impacted by some of these energy projects
- 90 Sometimes the local agencies try to control where development would go by placing higher stipulations on projects not located in their ideal areas. But this doesn't always coincide with the area that has the highest potential for energy. It seems as renewables are being held to higher standards than oil and gas, because of that industry's history.
- 91 This question is loaded.
- 92 not because of the regulators but because the regulators give great weight to utility opposition
- 93 Lack of transmission access due to siting difficulty, siting issues on federal land, environmental approval processes inappropriate for renewable projects
- 94 Inconsistent Net Metering and Building codes impact roof-top PV. I am less familiar with wholesale renewable issues (except the price is too high to compete without policy mandates)
- 95 Too much bureaucracy.
- 96 Environmental groups use basic regulatory procedures/processes to delay and/or kill projects, both generation and transmission.
- 97 Many RE projects are just too expensive for business or consumers
- 98 Need feed in tariff in CA to support reaching solar goals
- 99 Too few resources to support current interest in renewables caused by prior lack of political support
- 100 grid interconnection, unnecessary public fears/concerns
- 101 Timing of process for local and federal approvals

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What actions do you think would be most effective in avoiding regulatory delays?					
Answer Options	No effect	Moderately effective	Very effective	Rating Average	Response Count
Engage stakeholders early in the process	22	121	172	2.48	315
Establish appropriate mitigation measures	25	157	127	2.33	309
Change regulations	42	158	100	2.19	300
Require environmental documents and permitting to be completed within 12 months (including agency review time)	59	132	115	2.18	306
Start regulatory process earlier	50	153	100	2.17	303
Establish uniform mitigation measures	51	151	102	2.17	304
Establish a government entity to serve as a regulatory clearinghouse (e.g., renewable energy permitting office)	89	147	70	1.94	306
Move the project to another location	101	169	30	1.76	300
Other (please specify)					47
<i>answered question</i>					320
<i>skipped question</i>					63

Other

- 1 I just don't know
- 2 Need one stop shopping by development and permitting authorities and overlay zoning districts approved in advance for appropriate renewable technology.
- 3 Requiring specific agency review periods is not entirely practical -- many of the delays that occur are triggered by stakeholder involvement required by law.
- 4 The issue with the 12 month timeframe is artificial. Some developer teams understand how to negotiate the application process and others don't. A 12 month time increases a negative response from a permitting agency.
- 5 Direct congressional action to streamline permitting process including established transmission corridors exempt from NEPA and ESA. The current NEPA and ESA processes as managed by BLM, FWS and USFS will ensure that no major renewable projects come online, and likely even reach the record of decision point, during this administration's first term.
- 6 You can make everything uniform without allowing for different circumstances. Wind energy in Texas Panhandle is very different situation than wind energy off Long Island, NY
- 7 Arizona's 6-8 month regulatory process should be a model for other states.
- 8 I do not work directly on renewable energy projects and therefore only answered questions for which I can have an educated opinion.
- 9 All these answers are with respect to geothermal.

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- 10 It will take a few more significant increases at the gas pump to close the gap between reality and environmental necessity.
- 11 None of your answers are relevant because it depends on the project. Again, it is the regulatory process where rules are ignored or enforced based on the whatever whim of the reviewer that is most troublesome. Do you really want special treatment for one segment? This sounds like Al Gore's people are influencing the questions because they actually had to deal with the politics of the rules in California. Welcome to the real world Al.
- 12 Industry needs to be thoroughly knowledgeable with laws and regulations specific to their resource, as well as how other environmental laws and regulations need to be considered and how timeframes associated with these other regulations could affect their proposals.
- 13 Re: establish a gov't entity to act as a clearinghouse. FERC is too biased toward energy providers--this is my EIA exposure showing. I am also not sure if all Env docs & permitting can be completed in 12 mos.
- 14 Stronger involvement, direction, and oversight for federal agencies from their Washington office. The DC offices seem to be supportive of renewables and have a better understanding of the political and financial situation and should be in a position to positively influence their respective offices in the field.
- 15 The problem with the permitting process is with the applicant. They are not prepared so the process is delayed waiting for the applicant to submit the required studies and to comply with other agency requirements.
- 16 Each energy type faces unique challenges and offers unique benefits. For example, geothermal is limited to certain regions, but provides valuable baseload electricity and has a small footprint; whereas wind is not limited by region, but provides intermittent electricity and has a large footprint. A standardized cookie cutter approach is probably not effective.
- 17 Moderately effective answers simply refer to the fact that every project, every location, every issue are all site specific. There can be no "one-stop shopping" regulatory review or environmental document/permitting or mitigation measure that would be effective for all projects, everywhere. The best way to avoid regulatory delays is to engage stakeholders early, know the regulatory requirements and follow them completely.
- 18 Putting a deadline on approvals simply doesn't work. There is always some reason for regulators to justify a delay.
- 19 Too much oversight without responsibility at the present time. Oversight agencies need to be held accountable for direction and scope of issues they throw up in advance of effort.
- 20 Renewable energy developers are generally in denial concerning even low level impacts, but the larger issue is a lack of adequate preparation on the part of the developer, coupled with lack of understanding re regulatory process and siting issues. Limited expertise/exposure to renewable issues on part of some agency staff compounds the problem.
- 21 Applicants need to educate themselves about the regulatory process and the environmental review process so that they do not initiate projects with unrealistic expectations. Applicants also need to realize the importance of informing the public about their projects. Applicants also need to understand the types of technical information that they must provide as part of the regulatory and environmental review process. Starting the regulatory process before adequate information is available does nothing to expedite the process and may be counter-productive.
- 22 Demand shorter review periods (even 12 months is unreasonably long.) Uniform standards and mitigation issues may help this.
- 23 There are too many differences from one source to another and between projects to be able to answer this very broad question.
- 24 Remove subsidies for fossil fuels and people will realize how affordable renewables really are.

Summary of Renewable Energy Survey Results

- 25 Establish a clearinghouse might speed things up but you lose a lot of the local input. Changing the regulations could certainly be effective in speeding things up, but fast doesn't necessarily equate to a good job. The best idea above is to engage stakeholders early in the process. Don't wait until you have your alternatives all fleshed out. Don't let FERC just push one alternative and "consider but dismiss" all the others. This weeds out good alternatives too soon. We need a real scoping period very early in the process.
- 26 Most any project on public lands could be processed with remarkable speed if we did not have regulations in place to protect our resources. However, until we humans become so desperate for energy that we are unconcerned with the (environmental) repercussions of harvesting it, we should err on the side of more caution when considering environmental impacts of proposed development
- 27 Mitigation is applied to the proposal as part of the environmental studies. Outside of establishing an office to permit, I believe the most effective action would be to remove agency managers who fail to meet objectives of the administration. Additionally, those agency employees to purposely delay the project should be held accountable - financially responsible, fired, or otherwise disciplined. It sad to say but no one is looking at the actions of employees and managers who allow their personal agenda to dictate the actions while it a position of public trust.
- 28 changing regulations would (by definition) avoid regulatory delays, but wouldn't address the basis of the existing regulations.
- 29 As above
- 30 limited knowledge of this area
- 31 See my comment on the above section. I've been with the BLM long enough and seen regulatory changes that do not alter our operating procedures regardless of how the changes are structured if the funding is not made available and/or the political winds do not allow for efficient implementation.
- 32 I think most of the items listed above miss the point and really would have little effect on avoiding delays. Moving the project to private land may help in some cases, but not always possible. Requiring environmental documents to be completed in 12 months might be nice, but not achievable in most cases. Uniform mitigation measures would not take into account site-specific conditions and are likely to cause more problems and delays because they would be ineffective.
- 33 need to balance NEPA with projects. Cannot forgo permitting review
- 34 Make effective programmatic decisions on renewables that will streamline the regulatory requirements associated with site-specific projects. For site-specific projects use tiering and issue based NEPA to increase efficiency of process.
- 35 Have proponents come to government regulators when they have a clearly defined project that does not change focus every few months.
- 36 We need a national commitment to making our own energy in this country to avoid imported energy (and the financial drain associated with it). This will improve our national security, especially with distributed generation, rather than a few large power plants and lots of transmission. The southeast is the only area that will need more conventional solutions.
- 37 International consistency in the way hydropower is treated, regardless of scale
- 38 Changing regs takes too much time. In CA, for thermal projects we have a clearinghouse (CEC).
- 39 The vast majority of renewable projects are resource and site dependent so moving the project to a different location is usually not an option.
- 40 Everyone in the Desert Southwest would like shaded parking at the mall. Ensure that the EIS has considered all alternatives.
- 41 Federal lands need better planning to allow energy development to occur in areas with the best resource potentials. Establishing a comprehensive set of mitigation measures that could streamline the process.
- 42 Conduct research on environmental effects so regulators know what to ask for
- 43 Many of these may be "effective" but they might also be inappropriate.

Summary of Renewable Energy Survey Results

- 44 Virtually every project is unique and requires extensive review. Another Agency would only make it worse. They all have turf wars. If you create a new agency, the others will not go away.
- 45 Feed in Tariff System is needed in the US
- 46 Improve financing
- 47 More staffing of responsible regulatory agencies

Summary of Renewable Energy Survey Results

Is the U.S. headed in the right direction in regards to the development of renewable resources?		
Answer Options	Response Frequency	Response Count
Yes	76.5%	244
No	23.5%	75
Why not?		106
	<i>answered question</i>	319
	<i>skipped question</i>	64

Why not?

- 1 hard to say, but I'm trying to optimistic! centralizing renewable production seems like a bad trend, tax incentives seems good, throttling back fossil energy subsidies would be nice
- 2 Also need nuclear for base load and electric vehicles (LNG for trucks) to have an overall rationale plan.
- 3 All talk and no action
- 4 Lack of support from governemnt, lack of the necessary incentives for developing renewable energy.
- 5 A policy of renewable expansion irrespective of cost is both stupid and non-sustainable. You don't force renewables into the market -- they need to be cost effective.
- 6 The US must realize that we need EVERYTHING that can contribute to our electrical supply, and that includes nuclear. Sorry Obama, but you've got to follow your pragmatic instincts on this one, and educate your Left Wing!
- 7 Ignoring tranmission requirements/challenges; Not enough consideration given to nuclear
- 8 Too slow, not sufficient support w/in government, permitting process slow and cumbersome
- 9 Greater emphasis must be placed on removing the NEPA process time bottleneck on transmission projects. The impacts of a potential transmission line can be estimated and appropriate mitigation could be planned up front. Additionally, the communities (counties) impacted by the lines should receive some form of compensation that is part of the rate base. They are taking on burden and should be renumerated.
- 10 However, the incentives need to be strengthened and even increased to place more of these sources into the electrical grid. Also, significant investment must be made to improve the electrical transmission and distribution systems in California and all the U.S. Significant emphasis must be made in research to improve storage systems, particularly for solar technology.
- 11 Renewables have to be market driven, not forced by way of social or political engineering. The only regulations that should be in place are Functional Performance Testing standards to validate that whatever the system is that it is working as intended and designed.
- 12 Anything coming from the Federal level right now is just show with no substance. Let private industry do this and keep the government out.
- 13 Too many road blocks in Geothermal still
- 14 Need a national standard. Also, need a national standard on feed-in tariffs.
- 15 They need to move faster and put more money towards it.
- 16 Not enough government backing for new renewable development projects, such as tax breaks, up date the grid system, etc.
- 17 Need to have consistent policy for an extended period of time.

Summary of Renewable Energy Survey Results

- 18 We need a carbon tax, and we need to be even more aggressive than we currently are in funding and encouraging renewables. So maybe we are headed in the right general direction, but not nearly fast enough yet!
- 19 We are not being given an accurate assessment of the energy capability and feasibility.
- 20 The development of energy, renewable or non-renewable, is being protested by various environmental groups. Increase production and development costs due to these groups will prevent the development of economically competitive renewable energy sources.
- 21 The federal Renewable Fuels Standards preclude the use of biomass from federal lands. And, the same clause is proposed for the currently pending Renewable Energy Standards. This is effectively reduce a massive amount of sustainable renewable resources, reducing the ability of the federal government to conduct forest thinning to remove decades of hazardous fuels which can cause catastrophic wildfire which cost billions of dollars to suppress. Plus, a large wildfire can release millions of tons of CO2 in a single event. For example the Angora fire in Lake Tahoe in 2007 released the equivalent of 75,000 vehicles - and it wasn't even that large of a fire.
- 22 Too ad-hoc. Need an appropriate long term taxes on the undesirable energy sources (if any) to drive the market consistently, not tax credit of the day.
- 23 Decentralization and smaller operations less impact than trying to cover the Mojave Desert with solar panels.
- 24 Regulatory morass keeping private financing and new technologies on the sidelines.
- 25 I think we are finally heading in the right direction, but I don't think we're moving fast enough.
- 26 They are bogged down in regulation. Also, under the Energy Policy Act of 2005, BLM must give fossil fuels the highest priority. Furthermore, oil developers have been given numerous breaks, such as exemption from royalties.
- 27 Not aggressive enough in finding sustainable resources to replace petroleum dependency and to protect the environment from developers.
- 28 lack of knowledge of severity of problem. lack of political and public will...basic denial
- 29 Big lack of knowledge from most people about the limitations of renewables. They are less reliable and won't magically supplant fossil fuels. It is a step in right direction but being touted as panacea. ie. Secretary Salazar's recent pronouncement that eastern seaboard wind farm could power the US - and no green house gas either.
- 30 Agency direction is haphazard & delayed. Solar should not be a project handled by BLM Realty specialists (who do it because it currently is considered a ROW). Need to hire new staff with appropriate backgrounds.
- 31 Seem to be pushing renewables whether or not potentially viable or not; tariffs on imports from countries that can produce biofuels cheaper
- 32 We need to be more aggressive with developing renewables, and making them accessible to everyone.
- 33 We can no longer utilize the natural resources here in Oregon for timber, minerals, and energy, because the state is being mined for its recreation and tourism wealth at the expense of all others.
- 34 No political will to overcome overly rigid NEPA requirements in order to accelerate new technologies!
- 35 Should take a global view if we're serious about global warming--having US go to renewables doesn't mean the third world will be able to afford to.
- 36 Focus has been on quick results rather than a viable, long-term solution. We need look no farther than ethanol to see the mistakes that have been made just to achieve a short-term result that has no hope of long-term viability much less a positive impact on the environment. We're about to make the same mistake again rushing into quick solutions to achieve carbon reductions without knowing if the new approach will reduce adverse environmental impacts over the long-term or be viable over the long-term.
- 37 But we need more economic incentives to get these projects off the ground, and fewer subsidies for existing fossil fuel energy.

Summary of Renewable Energy Survey Results

- 38 There policy "leaders" have no clue how to deal with the short term energy needs while other long term energy needs are established.
- 39 The basis for looking at renewable energy sources and the political motivation for it flows from the basic price of gas. As long as the oil lobby can keep pricing low enough or creep the price up slow enough, the public at large and their political constituency will not take on the difficult policy decisions required to "force" our energy portfolios to change. Its like the frog in the pan, if you heat it up slowly, the frog will cook himself, but if you put them in hot water they will jump out.
- 40 Not rapid enough, not enough people believe fossil fuels are a problem.
- 41 Too much anticipated reliance on renewables. We need to find the proper mix of thremal (clean fossil fuel and nuclear) with renewables.
- 42 In the case of biomass - not enough value placed on the forest restoration benefits which can be accelerated if biomas markets were available. Not enough urgency.
- 43 Now, yes but the "right direction" is too dependent on political condition, e.g. having Democrats vs. Republicans in power. I am more confident w/ Obama in charge. Note: I mostly voted Democratic.
- 44 Recent efforts to improve rewards for investing in renewable resources is starting to create markets.
- 45 In some ways, yes. But this is going too slowly and I think there are more knee-jerk reactions instead of a well thought out direction. It seems that the US is going off in many different directions, and the sometimes conflict with one another.
- 46 Corn ethanol is not the answer!
- 47 At least in parts of the U.S. Some states are more progressive than others. Need to consider what individual states are doing and incorporate into national programs.
- 48 The money is all in development and equipment sales, not in operations or long-term viability. Investment Tax Credits confound quality and longevity; PTC is valid and useful.
- 49 I think the new administration will soon issue a new energy policy that will have renewables as a big part of it.
- 50 In general I think so, but all stakeholders need to be involved and understand the constraints, the issues, the opportunities so that all can live with these projects.
- 51 We should be doing more
- 52 Renewables must be carefully and thoughtfully implemented. Cold turkey withdrawal from fossil fuels won't work without economic disaster.
- 53 Too little systematic support (e.g., transmission grid); no longer-term game plan; ineffective or erratic financial incentives; continued implicit and explicit subsidies for fossil fuels & nuclear
- 54 funding and payback time
- 55 Needs to be even more aggresive.
- 56 Renewables are not a panacea. Sooner or later we will have to learn to live with a more-or-less fixed level of energy production and utilization. The "right direction" for the U.S. is toward serious conservation.
- 57 There is not sufficient economic value in pursuing the renewable energy model as it exists today--either on the National level of the private level. Renewables must provide a cost/value relationship equal to, or better than, conventional energy production methods now in place before they can become widespread and acceptable to the public as a whole.
- 58 Significant forward steps, but many inefficiencies are being built into the system. A standardized feed in tariff, and federal support for expansion of transmission would be the biggest breakthroughs.
- 59 We are not doing enough to encourage the developement of technologies that will conveniently replace fossil fuels.

Summary of Renewable Energy Survey Results

- 60 very late in the game
- 61 We could go much faster, though.
- 62 Until I actually see a full-fledged commitment to renewable resource projects, I don't believe we are making progress in this area. Also, I believe intellectual property for renewable technologies, such as solar energy, are dominated by fossil fuel companies and will not be seriously pursued unless there are significant rewards for those companies to abandon fossil fuels.
- 63 Further focus is needed in the research to understand longer term effects/issues.
- 64 The US is exploring options and this is great.
- 65 We should not consider streamlining permitting processes at the risk of not fully understanding the environmental consequences of many of the renewable energy technologies.
- 66 We are decades behind where we should be in terms of development of renewable resources. Also, we do not devote nearly enough time, money or effort into development of renewables.
- 67 very slow process
- 68 Renewables are seen partly as an answer to national security (renewables are generated within this country), partly as mitigation to environmental impacts from climate change, and partly to counteract oil and gas prices (which are low now, but were high less than a year ago.) Renewables fail on point 1 because they do not provide an alternative to gasoline, which comes from oil. They fail on an environmental side because they require a non-renewable energy source (coal or natural gas plant) for backup (e.g. when the wind is not blowing) and also because the environmental footprint of renewable projects is huge, tens of thousands of acres for a wind project and much more for transmission when projects are not located near the load center. Wind projects built on the Gulf Coast will cause significant damage to populations of migrating birds. Solar projects in the desert will cause significant damage to fragile desert ecosystems. This compares to a coal-fired power plant that is very compact and can be built near the load centers. If the money and research being directed to renewables were put into research for cleaning up coal emissions, we could satisfy national security, environmental, and cost issues. Lastly renewables are possible only because of government subsidies. If we are going to subsidize, roof-top solar in cities could help more by delivering power where it is needed.
- 69 Biomass, specifically forest products needs stronger support. A "yes" for wind, solar and geothermal.
- 70 Yes, we are headed in the right direction in pursuing renewable sources, no we are still applying our big business, industrial paradigm to development instead of providing more incentives, lowering the learning curve, breaking down the obstacles to implement small household scale solutions.
- 71 Coal, Hydro, Nuclear are all heavily subsidized. Renewables need to be supported at similar levels.
- 72 but only barely. the new administration needs to step up and take charge of the federal renewables programs to get them going effectively
- 73 Need to utilize renewable resources; however, need to utilize them effectively - don't jump on bandwagon just because the wind blows occasionally.
- 74 yes but still need to tax both emissions and unsustainable resource extraction

Summary of Renewable Energy Survey Results

- 75 There needs to be more effort placed on developing renewable resources. However, we need to be smart about where we put them. For example, why sacrifice thousands of acres of public land for a solar farm, when we have parking lots and buildings what would be great locations. If placed in parking lots, they could serve as shade for vehicles. We have lots of buildings with flat roofs (w.g. big box stores), which should be great areas for collection. In regards to wind, turbines could be placed in a farm field, where the habitat is already converted. So, the policy makers need to be realistic, and need to consider common sense locations for renewable sources of energy.
- 76 too little, too late. Lack of government support at all levels.
- 77 Uncertain
- 78 We need to focus more on conserving energy through all types of uses, household, commercial, recycling, reduced packaging etc. I think we should focus locally rather than in a regional scale or larger. Let communities utilize houses, buildings etc. Why do the large utility companies have to supply all of our energy? Lets go local! Change regulations for new home builders requiring solar energy facilities to be installed to help with their energy needs. The federal government needs to take the lead.
- 79 Depends. The current generation of RE has significant problems but we need to use them to learn how to do it better.
- 80 we are too imbedded in fossil fuels and so is the industry--there are things we should be doing especially with solar in our case for building and working with electrical suppliers as sell back and we are not.
- 81 I think nuclear needs to be developed more and sold to unknowing public.
- 82 insufficient knowledge
- 83 Greater subsidies for development of rooftop solar on residences would help more and would have less environmental impact than subsidies for utility scale projects.
- 84 Not in regard to biofuels; we need to get away from food based fuel stock (e.g. soybeans & corn)
- 85 It won't be until the playing field is level for all energy sources. The subsidies for fossil fuels outweigh those for renewable energy sources. We do not pay the real cost of fossil fuel energy at the consumer level. What if, at the pump or the electrical outlet, we paid the real price of development/protection/transportation of fossil fuels. Such a price would make renewables much more appealing for development.
- 86 1. Oil and Gas Industry has too strong of a hold on Government Policy Makers and the purse strings.
2. Not enough education to the general public as to the continued long term impacts of not changing how Americans live.
- 87 More economic resources need to be committed.
- 88 There is no national renewable policy, states are in the driver seat. Transmission is the biggest constraint and a prime issue for a national strategy. Depending on the national renewables goals, nuclear and hydro may need to be considered part of the renewable mix.
- 89 Continued emphasis on non-viable (economicly) alternatives which dilutes efforts on viable alternatives.
- 90 But not for actions by the federal government. We still need the national resolve to get get renewables done despite the inevitable complaints from the NIMBY crowd.
- 91 need more research to make commercially viable
- 92 Political rhetoric implies there's a desire but when an enterprise starts an initiative it is held up by political pressure of "not in my backyard". The extremely long delays cause many to "give up the pursuit".
- 93 Can't comment much as I'm not US based. However, the US was simply not on the radar until Obama's election

Summary of Renewable Energy Survey Results

- 94 No National mandate/directive/policy/or law that drives all National, Regional and Local Agencies. Highly fragmented National initiatives. Highly fragmented regulatory setting. Highly fragmented industry. High levels of organizational inertia opposing change, new initiatives, and new approaches.
- 95 Could improve with a more level playing field regarding carbon costs and a streamlined regulatory process.
- 96 Things aren't moving fast enough. Need faster permits and Green bank
- 97 We are failing to effectively address utilization of the largest source of cost effective energy - nuclear. It will tie us over until other renewables are more cost effective as fossil fuels become more expensive. Need to streamline nuclear permitting process and nuclear plant specifications (for ensuring cheaper operating costs) and designate a nuclear waste disposal area.
- 98 Make it more appealing for every home owner to have solar and/or wind power.
- 99 Yes, finally, but the land management hasn't yet caught up with it to enable the projects to occur in reasonable time.
- 100 Many local utilities consider alternative energy project as direct competition to their core business and consequently are less than cooperative
- 101 RE is still cost prohibitive and regulatory entities, on every level, are becoming more strict with each passing year
- 102 Because Wind and Solar cannot replace "baseload" resources, due to their intermittent nature. Also the enormous amount of land it would take to site the Wind and Solar projects would be problematic, and in addition, there is bound to be backlash when people begin to see miles and miles of wind turbines and solar dishes in their communities.
- 103 No direction, haphazard. No focused, intelligent effort.
- 104 Of course not, its all political. Politics is leading the science and the economic viability.
- 105 Where are the dispatchables systems?
- 106 It was hard to get much worse than the last 8 years

Summary of Renewable Energy Survey Results

Nationwide federal programmatic documents have been prepared for several renewable energy sources. Will these programmatic documents speed the process on public lands, or will they make no difference?						
Answer Options	No, it won't make a difference	Maybe	Yes, it will make a difference	Don't know	Rating Average	Response Count
Transmission Corridor Programmatic document	30	102	96	85	2.29	313
Solar Programmatic document	21	107	77	109	2.27	314
Geothermal Programmatic document	26	118	76	90	2.23	310
Wind Programmatic document	26	116	74	96	2.22	312
Outer Continental Shelf Programmatic document (includes tidal, offshore wind, ocean thermal)	27	96	48	136	2.12	307
Why?						117
					<i>answered question</i>	316
					<i>skipped question</i>	67

- Why**
- 1 As long as permitting is one stop shop it may work, otherwise more beauracrats involved who mean well but have no concept of cost benefit or appropriate time. They get paid no matter what!
 - 2 These documents fulfill requirements placed on these federal agencies and are intended to remove one set of administrative hurdles.
 - 3 Not sufficient documentation for tiering. No one in the industry wanted it anyway and thought it was a joke
 - 4 Public land authorities are too slow to react, and the need for speeding up permitting processes is NOW!!!
 - 5 Will the Programmatic Agreements exist between all Fed and State Agencies or just some of them?
 - 6 These documents do not consider the on-the-ground effects to the extent that stakeholders and the public would like.
 - 7 The people that put the document together are a large part of the problem
 - 8 They only deal with federal lands, and states can be more restrictive regarding environmental insults.
 - 9 These documents should allow for expedited permitting of renewable facilities. It is also important that project proponents be out in advance of this process to educate the public and potentially impacted residents/communities.
 - 10 More talk, no action.
 - 11 You did not provide an option that these documents will hinder the process instead of helping the process.
 - 12 There are many possible outcomes here, and we cannot know the future of regulatory impacts until we're done.
 - 13 I am not familiar enough with that part of business
 - 14 Don't work with public land projects.
 - 15 The local agency offices and employees are not required to use these documents. They blatantly ignore them.
 - 16 set precedence, convey necessary components of plans, fosters regulatory comfort level in whats being produced
 - 17 It gives all the various agencies similar knowledge on what the problems and issues are, so everyone isn't reinventing the wheel.
 - 18 Because local federal offices will ignore the programatic documents and engage in business as usual under their NEPA process.
 - 19 I do not work directly on renewable energy projects and therefore do not feel I can answer this question adequately.

Summary of Renewable Energy Survey Results

- 20 The programmatic documents have done little, other than to establish a policy for granting right of ways. They have not made permitting projects any faster.
- 21 They have already identified the issues associated with the energy sources. It will help in bringing these issues to the public early in the public involvement/stakeholder process.
- 22 These efforts are good in concept but it is too early to tell if they will streamline the overall regulatory process or if they just added another step.
- 23 has zero effect on commitment to change or speed of development..a waste of time
- 24 From what i've seen regarding the Wind Programmatic, BLM is processing wind projects under EAs rather EISs
- 25 I am most familiar with Western transmission corridor EIS. It will certainly aid in the permitting of transmission lines across federal land. Resource Management Plans were amended to accomodate the corridors. However, corridors are disjointed and linked more in terms of what the feds were willing to give up versus what utilities actually need. My utility's corridor requests were largely ignored.
- 26 Certainty
- 27 There are always site specific issues that need to be addressed. There will always have to be a site specific EIS and that takes time.
- 28 Untested in Alaska.
- 29 Wildlife biologist have only two things on their minds: sage grouse and fish.
- 30 Political intransigence to streamlining the NEPA process!
- 31 Programmatic documents do a great job of identifying generic impacts but do not address the site specific impacts thta generat eth emost opposition or are most likely to present a renewable energy project from moving forward.
- 32 I haven't seen these documents so I don't know if they will have an impact or not.
- 33 Well why should they get special treatment? This again sounds like Al Gore wanting to get sopecial treatment.
- 34 Transmission corridors are not being widely used because projects don't necessarily fall in line. No reason to think other documents won't have the same problems.
- 35 programmatic documents leave site specific planning to the time the project is proposed. and the guidance and streamlining intended for this programmatic planning is often left on the cutting room floor once it comes to a specific project. For example, the national transmission corridors programmatic document identified corridors for use. The first large scale project to come after this document was approved promptly identified other areas outside the approved corridors. Often, as with this project, the political momentum for the projects precludes the agencies ability to direct projects into these areas. As a result, the programmatic documents are less useful.
- 36 The documents are too conceptual. Site-specific opposition is already forming to proposed projects.
- 37 Solar programmatic EIS has been delayed, but when it is completed, it may make a difference.
- 38 Being programmatic in nature they still require some degree of analysis under the NEPA before they can be implemented to ensure that we are doing our jobs in protecting the site-specific resources.
- 39 The Programmatic documents are too broad in scope, don't address the specific local enviro conditions.
- 40 These documents are too recent to provide an analysis of their effectiveness. The corridor EIS is already being ignored.
- 41 In Canada, there has not been a geothermal programmatic document prepared for anything except geexchange (heat pumps)
- 42 Programmatic EIA needs to be back-loaded with conscientious followup with EA or CATEX documents to address specific projects in specific places.
- 43 The agencies will still want to do too much additional analyses and insert many more processes.

Summary of Renewable Energy Survey Results

- 44 I have personal experience working with several of the documents identified above. My initial reaction is that benefits in programmatic EIS are minimal if any, since site-specific environmental reviews are still required and delay or prevent project approval.
 - 45 The EIR is done for a large area for development. Only the specific sites need further EIR studies greatly speeding up the process. Imperial County, CA. uses this model and I believe they are more successful because of it.
 - 46 Programmatic documents historically amount to one more diversionary process involving years of delay and no substantive changes. They simply wash hands of dysfunctional decision makers.
 - 47 Opponents challenge the programmatic EISs as not being site specific so BLM is unwilling to do much tiering to them.
 - 48 The agencies aren't really set up to do RE development, so anything that can help them, helps.
 - 49 Transmission Corridor EIA doesn't provide anything of value. Corridors aren't particularly useful to renewables and EIS's still required.
 - 50 Public lands are often a highly emotional issue for local people. Hopefully, by applying specialized knowledge and expertise to the respective areas, the local and regional issues will be better served.
 - 51 My experience in the west is that every individual field office operates differently, some may not be familiar with these programmatic documents and other non-federal agencies get involved to delay the process even further. One field office will take 2 years to process a CX for a met tower while another field office will only take one year.
 - 52 Provides the permitting agencies with direction so they can then move the process forward.
 - 53 There will always be some group that opposes a local project, regardless of a programmatic document. Site specific conditions may render a programmatic document useless.
 - 54 The documentation is just the first step. Getting the regulators to actually apply it efficiently is the bigger challenge
 - 55 Site-specific project NEPA analyses can tier to assessment of generic issues covered in the programmatic documents including cumulative impact assessment.
 - 56 It's a start so the individual states can tier off the PEIS.
 - 57 Again, too much interagency conflict and self interest with over site guidance.
 - 58 I was not aware of the OCS, solar, nor T-Line PEIS docs
 - 59 the geo doc addressed a back log of applications, so one would hope that it would make a difference. The programmatic should help, but I've heard that the USFS process for the ground leases will still take just as long as before.
- Uncertain how many projects are actually slated for federal lands, but at least state agencies have heard about the federal process, so it should help a little.
- 60 programmatic documents do not cover site specific mitigation --they are good for simple projects but almost ineffective for more complicated situations
 - 61 Presumably clarifies requirements
 - 62 Eliminates every project from being unique.
 - 63 Not enough site-specific data to do much to simplify or speed project-specific regulatory and environmental reviews. Useful primarily for general background information, which helps a little but does not do much to expedite the overall regulatory or environmental review process.
 - 64 Getting the public to accept the sight of these facilities for the sake of reduction of fossil fuels is the biggest obstacle.

Summary of Renewable Energy Survey Results

- 65 As evidenced by the controversy over solar in the Mojave Desert, no programmatic document can adequately deal with the details of specific projects.
- 66 The programmatic documents don't include information that is site-specific enough to be useful for individual projects.
- 67 The programmatic documents don't eliminate the requirement for project permits for the associated transmission lines.
- 68 Programmatic documents are usually pretty conservative rather than allowing sweeping concessions. Projects that do not fit within the standard actions will need extended review as always, but many others may go forward at a better pace.
- 69 Frameworks guide decisions.
- 70 Too many variables to say if any of these will make a difference. I'm an optimist, so I hope it will.
- 71 These clarify intent and should allow less potential for procedural appeals.
- 72 Some of these projects were pushed through without adequate local input.
- 73 I have no information on which to make a judgement.
- 74 These documents are at a very high level and don't really address the site specific concerns of individual projects.
- 75 Despite having a Programmatic Wind EIS, BLM is still throwing a huge wrench in the works. Recent policy revisions and guidance within BLM has done nothing.
- 76 Creating a programmatic will address issues that can be mitigated, I have found that programmatic agreements are not specific enough to address exact locations thus a second document needs to be used for site specific.
- 77 Any form of "blanket coverage" which eliminates the need for additional environmental impact documents can only help speed the process.
- 78 These programmatic documents are general and there will still need to be site-specific evaluation of projects from federal, state, and some cases, local agencies.
- 79 The PEIS' are very general in scope and lacking in site specificity. IMO, states & feds will be at odds when site specifics are added to the PEIS. My fear is there will not be greater NEPA coordination and the 'P' in EIS will be dropped. This will lead to greater/more protracted appeals
- 80 Haven't seen the documents.
- 81 The wind programmatic EIS amended land use plans and set mitigation practices.
- 82 Most of these documents do not go far enough in assessing impacts to allow for a more streamlined approach. They are good information sources but in the end, individual projects will likely have to stand on their own merits with their own analysis documents to be viable and withstand administrative and litigative challenge.
- 83 The goals of the documents vary - some give direct guidance, others just ideas. These documents need to more clearly delineate land use constraints and opportunities.
- 84 geothermal and especially wind PEISs didn't prioritize development areas. Instead, wind said essentially all open except what's closed. Wind should be revised to prioritize areas and solar MUST prioritize. Project by project review won't get us where we need to go for climate or the public lands.
- 85 BLM, State Office personnel have suggested the PEIS for wind development does not apply to WY. The ROD, IM says it does.
- 86 Site specific work still to do.
- 87 Most of the issues related to public policy have not been addressed. Most projects are being protested at the site specific stage, and the level of analysis in the programmatic environmental documents is not adequate to accomplish the objectives - projects are not being approved in a timely manner.

Summary of Renewable Energy Survey Results

- 88 I only work directly with hydro, so don't know about other energy sources.
- 89 These documents gather much of the current research in one place. They should be updated on a regular basis so that new research information is available.
- 90 other laws that are our primary reason for existence
- 91 It is not clear that the programmatic approaches will help much because local review and approval is still required.
- 92 These efforts can help the agencies and industry in assessing the general potential of proposals, however these are very broad brush assessments. These should help to pick areas where there are potential, but the site specific analysis will be very lengthy regardless.
- 93 Site-specific environmental analysis will still be required and will take time. If the cumulative impacts analyses in the programmatic documents are done well (accurate and comprehensive) then that should help the tiered NEPA documents, but often these sections are the least well thought out of a programmatic EIS.
- 94 Geothermal PEIS becomes the Reasonably Foreseeable Development (RFD) document for leasing, nothing more. If RMPs already contain this RFD, NEPA is still required for any permitting or development. Transmission Corridor is fine if following these corridors is mandated, but it is not. Electrical Transmission companies will still propose the least expensive routes, whether these follow analyzed corridors or not--mostly not.
- 95 trans. corridor is biggest hurdle.
- 96 Not sure what you mean here, are these informational items about the renewable, or are they aids to the approval process. ?
- 97 For every individual project under these program, there is no need to continue to re-visit the policy decisions (these can simply be assumed, tiered). Developers are also aware of the sideboards and can bring projects to the table already a few steps ahead of the game.
- 98 Site Specific environmental reviews will still need to be conducted.
- 99 They scale of the document is too large and therefore when field offices are preparing DNAs, they have to still rely primarily on their own documents. However, it may serve to help expedite the Forest Service leasing process. Remains to be seen.
- 100 Gives a good starting point for the process and a good understanding of the renewable energy.
- 101 It all depends on what the feds do with those documents, and how committed they are to getting the problem solved.
- 102 I still think a lot of the delay is caused by politicians. For example, off Cape Cod there have been plans for a wind farm for several years. Unfortunately the farm would be visible from Hyannis.
- 103 Education, Follow-through and Outreach are essential to any program or project success.
- 104 Agency field staff need training to effectively use these programmatic documents to issue permits.
- 105 The federal programmatic documents have already reduced the permitting uncertainty.
- 106 In areas that have less developed opposition this will speed the process. In areas where the activists have strongholds it will not help.
- 107 when they are developed and used correctly, they can allow for more stream-lined NEPA at the permitting stage
- 108 Many of these programmatic documents are way to broad. They were helpful in establishing policy that site-specific documents can tier to, but they fell short of facilitating the process by not creating pre-approved development areas.
- 109 Although the programmatic agreements are promising, political and local social issues remain paramount.
- 110 Streamlining, although remains to be seen whether powers will be utilized, i.e. FERC condemnation rights
- 111 the utility fox is guarding the renewable energy hen house (not an original claim by this survey participant)
- 112 Just because you identify a laundry list of potential impacts, that doesn't negate the need for site specific analyses.

Summary of Renewable Energy Survey Results

- 113** Depends on how willing individual federal field offices are, to make use of the NEPA that has been completed. Many require additional site specific analysis which essentially negates the benefits of the programmatic document.
- 114** I am not aware of this.
- 115** Financing is biggest holdback
- 116** The inherent problem with renewable energy development is the lack of a framework by which all stakeholders can come to understand impacts, benefits, costs, and remediation techniques. Currently, there is often unqualified, decentralized, and inconsistent notions of impacts and appropriate remediation techniques.
- 117** Such documents help address perceived risk

Summary of Renewable Energy Survey Results

It appears likely that carbon dioxide and other greenhouse gases will be regulated by the federal government in the near future. Do you believe		
Answer Options	Response Frequency	Response Count
YES, it will decrease our use of nonrenewable	64.4%	206
NO, it will NOT decrease our use of nonrenewable	35.6%	114
Why not?		99
	<i>answered question</i>	320
	<i>skipped question</i>	63

Why not?

- 1 We need more power than renewables can provide.
- 2 It will have to be politically palatable in a terrible economy. Electric costs are reasonable compared with heat and vehicle fuel but don't get much publicity as such (\$100 per month buys a lot of convenience).
- 3 Hopefully it will increase the use but that may be too logical an assumption for this ridiculous regulation
- 4 If an industry is adversely effected the Govt. historically creates programs to alleviate those effects. Hopefully as an industry complains congress will provide more renewable energy programs and funding.
- 5 CO2 tax is wrong and effect steals from the working class. I strongly disagree with anything re CO2 regulation, as it is simply a benign gas that is part of our atmosphere.
- 6 Because we need coal and natural gas to generate power, but it will cost more and help make renewables look more economic.
- 7 Without more nuclear, we will still need baseload generation to backstop wind and solar; not enough transmission will get built to enable these sources to play a significant role
- 8 Becuase it is the known technology that provides a considerable amount of baseload generation. The price of generation will increase making other source competitive and in the long run the percentages will change. But it will be some decades into the future before we retire the existing fleet of facilities due to the intermittent nature of renewables and the considerable amount of transmission that must be built to allow for a renewable energy future.
- 9 Political and social engineering only increase costs to specify and execute renewables. The end result is that fossil fuels will always be more first-cost effective. Renewable technologies have to stand on their own merits; however, by removing excessive regulatory requirements, they can more fairly compete against conventional energy sources.
- 10 All it will do is cause more chaos in the process. Use incentives, not regulations. Biofuels, for example, have gone as far as they have because there was not government interference. Provide support and funding where appropriate, but then get out of the way of people that can make a difference.
- 11 Geothermal energy is a zero carbon technology, and it will benefit from carbon taxation.
- 12 We don't have enough renewables to substitute.
- 13 IF the regulations chosen are appropriate and at effective levels!!
- 14 will only increase price without funding for alternatives

Summary of Renewable Energy Survey Results

- 15 Because fossil fuels are the only feasible option for many uses at this point.
- 16 Decreasing our use of fossil fuel is unlikely and impractical in the near term, what I hope will happen is that renewable resources will be used more and scrubbing technology will advance.
- 17 Carbon Dioxide is a by product of every living thing on the planet. It is a by product of combustion, Which groups of CO2 producers are we going to do without? The population and society need a certain level of combustible product to live life. What will society cut?
- 18 Because other countries are not bound to reduce CO2 and they won't because they want to grow thier economies.
- 19 it's another scheme to get taxes and have government increasingly intrude in our lives
- 20 But possibly not very much
- 21 Will also free up low cost carbon based fuels for competing markets like China and India, good plan!!
- 22 To a certain degree, but not as much as we need to.
- 23 Consumer pricing.
- 24 Yes, but it should be done as a tax. I am concerned that cap-and-trade will not be effective.
- 25 with today's economy and the lower cost associated with nonrenewable sources, they will be preferred by the majority of the industries. Also, todays infrastructure is built for the use of nonrenewables. new infrastructure and machinery to use the renewables will cost money. It will take a long time to implement renewables into our society.
- 26 Because it is not the only issue that affects nonrenewable sources of energy.
- 27 Regulating carbon will essentially be a tax on energy and it will affect all who use electricity. We will still use fossil fuels due to their reliable and plentiful nature, and we will pay about 20 percent more for it.
- 28 Use of nonrenewable sources could remain at current levels in absolute terms, but gradually decrease as a percentage of total energy use.
- 29 Out of sight out of mind.
- 30 Just another barrier to reasonable development if the paralysis by analysis issues relating to the NEPA process is not streamlined markedly!
- 31 Much depends on the nature of the program and how it is managed. If the program become some of imposed "user fees" and credits, we'll shift the identify of the user but not the amount used. An effective program will require incentives to reduce vice simply shift use patterns and will thrive only to the extent that viable industrial/commercial technology can be developed to replace high carbon production energy sources.
- 32 And that is a good thing!
- 33 Because of the simple term: elasticity of demand.
- 34 It will decrease the use of non-renewables, but the real question is how long will it take for that to happen.
- 35 It should, but I do not know that it will. We are dealing with a recalcitrant public and big business that has not bought into the process.
- 36 Not initially.
- 37 Until there are affordable options for the everyday person that will help limit their GHG emissions, I don't see it as reducing much of the use. Also for those that can afford it, willl continue to utilize the more GHG emitting sources to fuel vehicles, heat and cool their houses, etc...regardless of regulation. If they can afford it they will buy it.
- 38 The most abundant renewables for electrical generation are wind and solar, both of which require on-call backup generation that can only be provided by natural gas.

Summary of Renewable Energy Survey Results

- 39 Question could be misleading. What kind of timeframe? 10/50/100 years in the future. More regulations would lead to an adverse economic impact. Education, projected energy needs, depletion of fossil fuels will do more to drive the increase in renewable energy need and emphasis as well as nuclear energy.
- 40 Increased use of renewables will not match increased demand for energy.
- 41 The demand for energy is the driving force. Carbon regulation appears to go about the reward in the wrong manner. Nonrenewable sources will consistently be used and in demand until renewable sources become more market competitive.
- 42 There still needs to be viable alternatives in place. Also, they need to look at the whole picture of what goes into producing the so called "green" energy or other so called "green" products.
- 43 The US is accustomed to its automobile, ie, the freedom to go at any time, this is one of our major pollution sources. How does the fed proposed to quantify emissions of CO2?
- 44 Program and project response to C&T markets will pre-empt real development and operation. Removal of administrative, fiscal and regulatory barriers should be the objective, not addition of derivative values and non-technical market makers.
- 45 Population control is the root cause.
- 46 The carbon trading market will explode. There are already a number of opportunistic investors entering the arena. Unfortunately, while a large carbon credit market may be a driver for renewables, it will also enable conventional nonrenewable sources of energy that are well funded, to buy their way out.
- 47 Not immediately anyway - the country today is dependent on these sources of energy by over 50%. Our consumption is only growing.
- 48 Renewables are not yet at a stage to seriously compete with fossil fuels either on a cost or reliability basis.
- 49 We need both nonrenewable and renewable resources to meet demand. Both are important, especially because wind and solar only have certain availability.
- 50 But only gradually under current proposals. More dramatic action needed to achieve rapid decreases
- 51 We need to rethink how we use energy and tap into all sources if possible
- 52 Too many people breathing out carbon dioxide.
- 53 existing power plants will not shut down. New plants coming on line will have to address carbon, but uncertain if trades will actually decrease carbon production.
- 54 to established
- 55 It will probably decrease use below what it otherwise would be.
- 56 It will make them more expensive but not necessarily effect usage. The goal should be to continue exploration and research of renewables as cost effective viable alternatives. New technology and product development would be driven by economics in lieu of government mandates. This would steer product development towards efficiency and reliability.
- 57 It's available, it's cheap and our population is growing, as are our energy needs. What else will we rely on?
- 58 Our biggest source of regulated carbon is personal transportation. Only when consumers have a reasonable alternative presented (forced on them) will they reduce use of nonrenewables.
- 59 unless you can really "clean" coal...
- 60 I don't believe that politicians can defy the lobby.
- 61 Over time.

Summary of Renewable Energy Survey Results

- 62 People need a bigger incentive/disincentive to reduce their individual use of energy.
- 63 Maybe but it will depend on the best science practices available at that time.
- 64 Until we decrease the human population, all forms of governmental regulation will merely be token attempts at controlling the problem.
- 65 I believe it is a start, but not enough while large corporations can still buy credits, or find it cheaper to pay the fines and continue with the status quo than to make huge changes. The fines or consequences need to be steep enough to force change. As long as the multi billion dollar oil industry has the money, they have the power to slow this progress down.
- 66 Our future energy policy will probably include a combination of renewable energy and regulation of CO2 and greenhouse gases.
- 67 They will probably upgrade the technology and charge more or buy credits from other sources.
- 68 It may cap our use but it is not likely to decrease our use in the near or far term.
- 69 It will accelerate our departure from a carbon based energy sector
- 70 We'll develop technology to reduce the emission of greenhouse gasses.
- 71 Not for the foreseeable future. Until we get real about managing world human population and modifying our consumptive behavior in the US, demand for energy, gadgets, big houses is not going to change. I can tell trying to permit a renewable energy project in Wyoming is proving to be quite challenging and not from a resource concern basis (project located in an area of few issues).
- 72 It may slow the steadily increasing demand for fossil fuels for energy production and for fuels, but I don't believe that actual decreased demand will occur until research has provided better, more cost-effective alternatives.
- 73 Regulation alone would be minimally successful. Needs awareness and buy-in by the public at large.
- 74 Sustainable baseload is required to keep the U.S. functioning
- 75 Energy demand growth will probably outstrip the growth in current generation RE. If we get CCS to work then coal and gas will be used until they run out so an ETS or carbon tax will make no difference.
If CCS doesn't work then the replacement will be nuclear until the uranium runs out.
- 76 easy and used to it
- 77 \$\$\$\$\$\$\$\$\$\$\$\$\$\$
- 78 trading
- 79 We will still need to utilize fossil fuels in the near future as well as renewables to reduce our dependence on foreign oil, and to help the economy get back on track.
- 80 Not in the short run. The options for generating power and fuel from renewable resources are not suitable for large-scale use at this point, and most likely will not be suitable for meeting most of our power needs for a long time.
- 81 A dualism answer that is too simplistic here. Only if regulations are drawn up from a position of political courage will there be positive effects. Not confident that this will happen.
- 82 some
- 83 We are still not teaching Americans to conserve. Many still do not believe it is an issue. Reduction will only occur as a by-product of individuals personal finances. AS soon as/ or if the economy recovers, Americans will return to driving more, driving bigger cars, buying more products they don't need. The next Republican Administration will reverse all that happens in the next 4 to 8 years.
- 84 Based upon the European experience with cap & trade, CO2 emissions actually increased.
- 85 possibly but it will be a long road to changing peoples easy life styles to the idea that the environment needs attention, work and thought.

Summary of Renewable Energy Survey Results

- 86 It will make carbon fuels more expensive and therefore promote the use of non-carbon fuels over time. This will have almost NO effect on global warming however, and therefore the cost/benefit ratio is very poor. Not a good investment by the nation.
- 87 still is needed until renewables are commercially equal
- 88 yes, over time.
- 89 As costs of nonrenewables go up, and renewables become cost effective, use of nonrenewables will decrease.
- 90 The technology will probably become more efficient and cleaner as opposed to decreasing use.
- 91 Lack of credible evidence that CO2 is the problem it is presented as.
We are driven by cost. Whichever is cheaper, we will use.
Many "solutions" are not solutions and cause other, more important problems, such as ethanol "food for energy".
- 92 Well not in the immediate future. It will take decades to bring alternatives to the table.
- 93 Consumer load is growing faster than the increase in renewable resources.
- 94 I don't think that carbon offsets will affect our energy independence goals.
- 95 Nonrenewable energy sources will continue to be used until they are either gone or too expensive.
- 96 Due to population growth we may have an overall increase on demand a growing percentage of which will be served by renewables. But the overall growth in demand will increase use of non-renewable sources on an absolute basis - increase in GWhs.
- 97 Depends how effective the regulations are...
- 98 renewables are a source of reducing carbon emissions, ergo their use should increase with carbon regulations.
- 99 It will not decrease use voluntarily, but if the government requires the change in habits.

Summary of Renewable Energy Survey Results

According to the U.S. Energy Information Administration, in 2008, renewables (including biofuels and hydropower) accounted for approximately 10% of domestic electrical production. The Administration has called for doubling renewable production within 3 years. Do you believe this is possible?

Answer Options	Response Frequency	Response Count
Yes	42.6%	144
Maybe	29.3%	99
No	26.0%	88
Not sure	2.1%	7
<i>answered question</i>		338
<i>skipped question</i>		45

Summary of Renewable Energy Survey Results

The goal of doubling renewable energy production in three years is unattainable because (check all that apply).		
Answer Options	Response Frequency	Response Count
Not economically feasible right now	67.8%	59
Too much regulation	44.8%	39
Not politically feasible	42.5%	37
Other	26.4%	23
The technology does not exist	21.8%	19
Not enough renewable resources	13.8%	12
<i>answered question</i>		87
<i>skipped question</i>		296

Other

- 1 Financing, incentive approvals, and permits have to be implimeted quicker than I think is possible for this to happen although it is technically possible.
- 2 It takes longer than that to permit a project and build it and the infrastructure. Again, all talk and no action.
- 3 To complete the environmental processes required prior to funding and then the funding process is very time consuming, which decreases availability of up-front private investment into projects.
- 4 It isn't possible to build out that fast.
- 5 Companies can't make the profit on renewables they make on fossil fuels. If it isn't profitable, the companies won't do it.
- 6 Transmission cannot be built fast enough to accommodate the growth in renewables
- 7 Most of the existing 10% is hydropower. You won't have a record of decision in three years on enough projects to come close to another 10%, let alone have any of them built. Without direct congressional streamlining of the federal bureaucratic regulatory process the question on renewables remains "if", not "when".
- 8 NIMBY! No one wants a dam flooding their valley and noone wants a new biofuel burning facility in their neighborhood. Everyone's for it as long as it doesn't disturb them.
- 9 National Environmental Policy Act needs drastic amendment!
- 10 People have not come to grips with the environmental impacts of renewal energy generation.
- 11 The transmission grid cannot be built in that little time.
- 12 Very large solar projects being proposed will take time to permit, and then construction will take years to complete in addition to permitting and constructing the new transmission system needed to deliver remote renewable energy generation to the load centers.
- 13 Economic feasibility may be the biggest hurdle. Federal funding will help but there are no many other competing needs for Federal fuding in today's economic climate.

Summary of Renewable Energy Survey Results

- 14 Recognizing and counting nationwide use of geothermal heating and cooling (ground-coupled, water-source heat pumps) is the only way to achieve real gains of this magnitude in this time frame through practical renewable energy that works. Exclusion of efficiency and savings of geothermal heat pumps from Renewable Portfolio standards and carbon proxies blocks the only viable way to tally achievements and document real progress.
- 15 Even with alleged policies to expedite wind applications, BLM moves painfully slowly. Most of the large potential wind projects are on federal lands and I doubt whether those projects can be approved (and litigation resolved) within 3 years, much less constructed in 3 years.
- 16 Three factors make a the 3-year time frame unrealistic. 1. the development time to permit, finance and construct a power plant (2-4 years) 2. a weak economy that makes the project economics more difficult 3. early technology curve in some renewable types, like ocean and utility solar need 5-7 years for large, scalable commercial solutions.
- 17 The expansion of renewable energy is dependent on expansion of the transmission system and significant commercialization of several new advancing technologies, both of which will take more than 3 years to get completed.
- 18 Transmission cannot be permitted and completed in three years. Montana has huge wind potential, but transmission is full. Limited new production of any sort will come on line until transmission is built. DG has not yet caught on, but may be the answer.
- 19 It also may be logistically impossible to accomplish.
- 20 The above says it all!
- 21 The technology issue pertains to integration. There is still much to learn about the integration of large amounts of renewables on the grid and inadequate energy storage.
- 22 Each of the above items could be part of the reason 3 years is not a resonable time frame. some technologies are still being developed, political issues stand in the way (offshore wind), regulation slows some technologies, renewable resources are not spread evenly across the US and transmission is a major issue, and economics (ie funding is hard to get) at this time.
- 23 Increasing hydropower is not possible when for years dam removal has been an environmental priority. Infrastructure for wind power is being developed, but not all there yet
- 24 Not enough transmission built to trnsmit from distant resources. Not enough interest on local, state, and federal level in increasing the use of rooftop solar. This could be a requirement for all new construction.
- 25 Attitudes of individuals who sit a position of public trust.
- 26 Some renewable energy projects require lead times longer than 3 years e.g., for geothermal energy, a longer lead time is needed to acquiring the fuel source (develop a geothermal field).
- 27 financing in tough market.
- 28 Needs the political and economic/financial support to get the infrastructure in place and demonstrate that renewable energy does not mean "alternative energy".
- 29 Capital resources must be made available to get renewable sources operable.
- 30 transmission contraints, intermittent resource contraints w/grid operation, un-wise to force projects and planning through to construction in three years (the quicker this is moved, the poorer the decisions).
- 31 Upstream and downstream capacity issues

Summary of Renewable Energy Survey Results

- 32 Lack of a National Mandate/Policy/Initiative that penetrates to the level of government where actions are actually implemented. Total lack of strategy, tactics, execution, and metrics. Shortage of personnel who have slightest understanding of the engineering, economics, structure and regulation of the energy industry.
- 33 Permits take too long. Equipment lead times, transmission lead times. Need financing for large projects
- 34 It takes several years for major projects to be permitted and built and in some cases there is not enough hardware available. The back order of wind turbines, solar thermal and PV equipment can effect new projects meeting this three year schedule.
- 35 We only turn over 2% of our energy architecture each year. It is mathematically impossible to go from 10% to 20% - even if we installed 100% new renewables - however, we might hit 14-15% or so, as we already do more than 50% of marginal adds in renewable
- 36 Financing is not available in this economic climate
- 37 There is plenty of technology out there. It would take at least 3 years to permit something. then there would be construction and other infrastructure needs to support the project. 3-years, that's election cycle talk.
- 38 Permitting, transmission, financing, and logistical hurdles make three years unrealistic

Summary of Renewable Energy Survey Results

Is there anything we forgot to ask or that you'd like to add?	
Answer Options	Response Count
	49
<i>answered question</i>	49
<i>skipped question</i>	334

Other

- 1 It is not in the best interests of government or even engineering companies to do anything quickly in a poor economy--job security!!
- 2 There seems to be an unbalance between the interest from the Federal and the State Government in the development of, in the one hand, wind and solar power as renewables and in the other, geothermal energy. Geothermal is sustainable, available 100% of the time and is a proven, mature technology. It seems to me this is the result of better-funded lobbying in Whashington from the big companies that are trying to develop wind and solar technology, while geothermal relies in a very meager funding for lobbying.
- 3 There needs to be discussion about where the natural resources will come from to build the renewable infrastructure being called for, ie steel for transmission and turbine towers, aluminum for transmission lines, along with the generator metals. Then there must be consideration for the construction resources available, project planners, supervisors, constructors, and heavy equipment.
- 4 I deal with ground source heat pump technology. We make better use of power regardless of where it comes from. It is subject to less regulatory pressure, has a standardized design methodology (ASHRAE), has an established vendor infrastructure, and yields more value than any other so-called renewable to either reduced operating cost/maintenance or point source reduction in power produced vs. energy delivered. Why are we not utilizing and promoting more of this type of technology?
- 5 It would be nice to have one regulatory authority, but it's not realistic in a huge country like ours with 300 million people. It's probably better to work at levels below the federal level whenever possible.
- 6 It would be good to ask about environmental policies that could impact renewable energy development
- 7 The main renewable energy sources I am involved with right now are Wave Energy and Ocean Thermal Energy Conversion (OTEC). You did not have any questions directly asking about these two sources. They are very different from Tidal Energy and Hydroelectric and have their own distinct set of issues and permitting complications.
- 8 Utility scale renewables should be regulated. There is too much confusion for a big market of this kind. Maybe all industries should be able to generate their own energy by rooftop solar. Rooftops should be exhausted before we commit our public lands to renewables.
- 9 The correct answer to many of these questions is "it depends." Situations and circumstances are so unique that it's hard to answer many of these questions.
- 10 Institute significant incentives (research grants, tax breaks, expedient environmental reviews, etc.) to encourage entrepreneurial impetuous and risk-taking in the pusuit of developmental projects.
- 11 NO

Summary of Renewable Energy Survey Results

- 12 At what price? Are we creating winners based on insider trading (i.e. Chinatown) of the politics? These are the questions that the public is going to want to know the answers to in the end. Why should we sustain another boondoggle like high tech only to have the bubble burst? We are still paying for that.
- 13 Centennial solar is a manufacture of PV Solar modules in North America for the Global Markets.
We offer industry-leading performance and proprietary design. We boast a high conversion efficiency - the percentage of sunlight that is converted into energy for your use - to maximize your savings. A Centennial Solar PV panel or system can be customized to suite your direct needs.
We have no problem supplying any size of solar panels
Our selling price is usually determined by the quality of cell used and quantities of panels ordered. again we do not sell price BUT sell quality !! ,
We can also manufacture solar panels around the pricing that you require using a different quality/efficiency of cell ...private labeled to you..
Please note, we are the worlds largest of varied sizes custom solar panel manufacture in the world (2 watts-411watts using 3 different cell technologies, Crystalline, CIGs-CIS, ATF- aSI,)..
We can mfg any-size (All with Certification) however we need advance notice as to the sizes, quantities, delivery times, to fulfill your needs .
If you have any questions please do not hesitate do contact me...thank you
Have a Great Day
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- 14 I am surprised that you did not ask any questions about public or environmental group concerns or support for renewable energy development. Organized opposition can cause significant delays to a project.
- 15 Good luck with this!
- 16 Retaining the 1983 scope of "renewable" definitions and excluding large hydropower from recognized "renewable resources" preserves a value base for vendors, developers and financiers but ignores benefits to owners, users and society at large. Overhaul of DOE's renewables' agenda is two decades past due. Focus on federal moneys on realized megawatts rather than endless research at national Labs is the third essential change.
- 17 Continuity and predictability of tax credits is important.

Speeding up the construction of new transmission for utility-scale wind and solar is important
- 18 Renewable energy is our future. But, we need less governmental regulations that tie the hands of the people involved in producing and creating new methods of obtaining these sources.

Summary of Renewable Energy Survey Results

- 19 we deal in ground source heating and cooling systems this is 400 to 500% more effeicent than burning fuel and or using standard conventional ac systems but if the system is not installed right it will cost more so there needs to be proff the that any so called energy efficent product or equipment there needs to be a thrid party test to make sure it is installed right and that it really works
- 20 I don't think the goal of doubling will be accomplished w/in 3 years but there will be a great start within this administration efforts.
- 21 Should be some questions re centralized vs. distributed generation, green design and planning, energy efficiency, as well as the basic question of need vs. demand. Alss recognize that "human factors" vs. technology play a very significant role with regard to effecting change at a greater scale (i.e., transformation).
- Thanks and Good Luck!
- 22 Cost of electricity to consumers is still an issue.
- 23 I believe if there was more government financing available such as guaranteed loans for renewable projects across the board we would be 87% renewable
- 24 Where many EAs have been prepared for renewable energy projects that lead to FONSI's, how about having DOE publish a new set of Categorical Exclusions (10 CFR 1021) applicable to renewable energy projects? Streamline the NEPA process where there is a proven record of no significant effects, and allow these projects to get on line.
- 25 We need to develop a prtfolio that is balanced and provides energy 24/7. Renewables alone cannot do this. We still need traditional sources of energy and cannot effectively change without a balanced approach.
- 26 As a fuels specialist, my focus is on biomass utilization. Although we offer plenty of product out in the woods, there is no infrastructure in place to remove it and utilize it to the extent possible. I didn't se many questions regarding woody biomass.
- 27 Until the global human population fully embraces the crisis if human overpopulation, and takes radical steps to halt it, we will continue in a downward spiral in our failed attempts to provide adequate, affordable energy for all humanity.
- 28 Ask about the suite of environmental effects of each type of technology. I based my answers on the full life cycle of the technology - i.e. the energy and water to produce solar technologies (both utility scale and rooftop), the environmental costs to operate (water, energy), external effects (bird kills, higher albedo from solar, decreased habitat connectivity, decreased gene flow, decreased habitat availability, loss of biodiversity), the costs to decomission projects and restore the occupied land and longer-term costs such as carbon emissions or air quality impacts. It's important to know what comprises the suite of environmental effects.
- 29 Make sure you consider electricity storage
- 30 Your survey seems to be pointed in collecting selected information. This is obvious in some of your comment sections where the choice is yes or no and the comment section asks "why not" instead of "why or why not". If this survey is to summarize opinions in a manner to make your case one way or another, whatever that may be, I would rather you not use my responses.
- 31 Transmission lines in areas where renewables are used for power generation are needed, but will cause a great deal of controversy and will take longer than 3 years to put in place. Therefore, renewable power generation can only double within 3 years if there is enough existing capacity for transmission.
- 32 One of the big hurdles for renewable energy is the payback analysis. There needs to be more comprehensive analytical tools for people, business and government agencies to demonstrate the benefits. Otherwise annual budget and bottom line paradigm processes create the appearance these technologies can't be mainstream.

Summary of Renewable Energy Survey Results

- 33 Until the change in administration, geothermal had become a unknown stepchild. I was pleased that there is now money available to help get some geothermal projects off the ground. Again, there is no truer form of baseload energy than geothermal. Comparatively speaking, it can be the most environmentally benign of almost all energy sources. Of course, I'm biased because of my interests and because of where I live.
- 34 In terms of the survey, the various types of renewables all have very different reasons for why they may or may not be viable (may want to consider breaking them out into separate questions).
- 35 Over the last 600 million years the atmospheric CO2 levels have declined from 15,000 ppmv to 300 ppmv, due to natural biological and geological processes. When limestone, or fossils, or black shale, or oil, gas, or coal are formed, atmospheric CO2 is sequestered. The Earth now has so little CO2 in the atmosphere that we now spend 100,000 years in ice age, and only 10,000 years in interglacial warm period (which we are now in and near the end of). This cycle has repeated itself many times over Earth's recent history. We are much more likely to suffer from the effects of the next ice age than a little more warming on top of the 8 degree rise since the last ice age. An ice age will make most of North America uninhabitable, with continental-scale ice sheets extending across Canada down into the Midwest. This would be an unmitigated disaster, but long before that happened, harsher winters and cold summers would make life more and more difficult. Crop failures will force people to move south, and ice-core history shows that these changes could happen relatively quickly. The next ice age WILL come, it is just a question of when...
- 36 some questions were ambiguous or I do not have the information needed to respond.
- 37 The Department of Interior and BLM/FWS are changing quickly. They will expedite projects.
- 38 There are other renewable sources such as heat differential, weight in motion, etc. where there is a need for technology development.
- 39 Transmission availability is the major issue at least in the West. New coordinated transmission system planning, permitting, financing, and construction takes several years.
- 40 Would like to see renewable energy completed by the working man NOT JUST GOVERNMENT!
- 41 The biomass tends to be located in remote areas that are not on the existing grid and would have high transportation costs to deliver the biomass to the burners.
- 42 I was making my own bio diesel fuel and then the truck company changed the engine to where new vehicles could not accept this fuel.
- 43 The push for renewables is driven, in part, by a relatively broad recognition that environmental health is important. We must not forget that renewables, too, have an environmental footprint and can have adverse effects on local resources and resource communities. Appropriate development must keep this in mind so that efforts to streamline do not come at the expense of sensitive resources and local communities.
- 44 Cap and trade will entail a huge and expensive infrastructure. Let's get over the lack of political spine and just institute a tax.
- 45 Use the highest achieving States as a model for Federal policy.
- 46 urban areas are hard to impossible to retrofit with RE hardware. If new builds were required to include RE aspects there is a chance more retrofits would be applied to existing power systems
- 47 Realistically, all the natural sources: wind, tide, solar, hydro are all caught up in the climate change discussion. Unless there is heavy Federal subsidies, no one will be willing to make the investment.
- 48 Utility involvement and acceptance is critical; their responsibility to their customers is a reliable source of energy at all times and under all conditions.
- 49 no