The Stella Group, Ltd.

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The Stella Group, Ltd.. is a strategic marketing and policy firm for clean distributed energy users and companies which include advanced batteries and controls,combined heat and power, energy efficiency, fuel cells, geo-exchange heat pumps, heat engines, minigeneration (natural gas), microhydropower, modular biomass, photovoltaics, small wind, and solar thermal (including daylighting, water heating, industrial preheat, building air-conditioning, and electric power generation). The Stella Group, Ltd. blends distributed energy technologies, aggregates financing (including leasing), with a focus on system standardization. Scott Sklar serves as Steering Committee Chair of the Sustainable Energy Coalition, composed of the renewable energy and energy efficiency trade associations and analytical groups, and sits on the national Boards of Directors of the non-profit Business Council for Sustainable Energy, Renewable Energy Policy Project, and the Sustainable Buildings Industry Council.

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EPA - ENERGY STAR (Energy Supply & Industry

EPA Energy Star
(in millions)

FY 04 Enacted	$50.0
FY 05 Enacted	$46.7
FY 06 Enacted	$49.6
FY 07 Pres Budget	$45.8
FY 07 CR-Enacted	$
FY 08 Pres Budget	$43.9

Energy Related Sections in the 2002 Farm Bill

(in millions of dollars) (EESI)

Section	Original Authorized	FY07 Authorization*	FY02
9002	$1 FY03-07	$1.0	$0.0
9004	$1 FY03-07	$1.0	$0.0
9006	$23 FY03-07	$3.0	$0.0
9008	$5 mil FY02, $14 mil/yr FY03-07 and $49 mil/yr FY02-07	$214.0	$5.0
9010	$150 mil/ FY03-06 $0 for FY07	$0.0	$150.0
6401	$40 mil/ FY03-07	$40.0	$40.0

Section	FY03	FY04	FY05	FY06 Final
9002	$1.0	$1.0	$2.0	$2.0
9004	$1.0	$1.0	$	$1.0
9006	$23.0	$22.9	$23.0	$23.0
9008	$14.0	$14.0	$14.0	$12.0
9010	$150.0	$150.0	$100.0	$60.0
6401	$40.0	$15.0	$15.5	$20.5

USDA Renewable Energy Programs

Renewable Energy Grants

2003 - $23 million
2004 - $22.864 million
2005 - $22.237 million
2006 - $21 million
2007 - $11.385 million
2008 (proposed) - $10 million

Renewable Energy Guaranteed Loans

2003 - $0
2004 - $0
2005 - $10.1 million
2006 - $24 million
2007 - $176.512 million
2008 (proposed) - $195 million

Revised March 19, 2007

	FY'06 Actual	FY'07 Request	FY'07 CR	FY'08 Request
	(in millions of dollars)			
Core Renewable Energy RD&D				
Biomass Program	89,776	149,687	199,687	179,263
Geothermal Technology Program	22,762	-	5,000	-
Solar Energy Technology	81,791	148,372	159,372	148,304
Wind and Hydropower Pr	38,828	43,819	49,319	40,069
Crosscutting RD&D				
Federal Energy Mngmt Prog	18,974	16,906	19,480	16,791
Hydrogen, Fuel Cells, & Infrastructure Program	153,451	195,801	193,551	213,000
Total, Target	**1,166,086**	**1,176,421**	**1,474,285**	**1,236,199**
Adjustments	-3,339,000			
GRAND TOTAL EE\RE	**1,162,747**	**1,176,421**	**1,474,285**	**1,236,199**

	FY'06 Actual	FY'07 Request	FY'07 CR	FY'08 Request
Biomass Program	**89,776**	**149,687**	**199,687**	**179,263**
Feedstock Infrastructure	492	9,967	9,967	10,000
Platforms R&D	19,542	50,530	50,530	59,400
Utilization of Platform Outputs R&D	22,915	89,190	139,190	104,863
Cellulosic Ethanol Reverse Auction	-	-	-	5,000
Congressionally Dir Activ	46,827	-	-	-

Biomass Gasifier: Distributed Energy

Water Energy RD&D: freeflow hydropower, tidal, wave, ocean currents and ocean thermal - improvements on existing hydropower turbines

Fact: New waterpower technologies, together with efficiency improvements and capacity upgrades at existing, we can get to 23,000 MW of new hydro renewable capacity without building any dams!

GEOTHERMAL

A 2007 MIT study commissioned by the U.S. Energy Department says geothermal energy can be accessed affordably, sustainably, and large-scale-ably with an investment of as little as $800 million over 15 years. (Cost comparison: That's about the price of *one* "clean-coal" plant.) Current U.S. geothermal production is comparable to its solar and wind generation combined -- which we all know ain't much -- but the study estimates that with proper investment, hot rocks could meet some 10 percent of U.S. electricity needs by mid-century.

	FY'06 Actual	FY'07 Request	FY'07 CR	FY'08 Request
Geothermal Technology Program	**22,762**	**-**	**5,000**	**-**
Technology Development	14,860	-	2,000	-
Technology Application	4,190	-	3,000	-
Congressionally Directed Activities	3,712	-	-	-
Hydropower	**495**	**-**	**-**	**-**
Technology Viability	150	-	-	-
Technology Application	345	-	-	-

Revised March 19, 2007

	FY'06 Actual	FY'07 Request	FY'07 CR	FY'08 Request
Solar Energy Technology Program	**81,791**	**148,372**	**159,372**	**148,304**
Photovoltaic Energy Systems	58,802	139,472	140,472	137,304
Concentrating Solar Power	7,284	8,900	15,900	9,000
Solar Heating and Lighting	1,449	-	3,000	2,000
Congressionally Directed Activities	14,256	-	-	-
Wind Energy	**38,333**	**43,819**	**49,319**	**40,069**
Technology Viability	17,829	35,905	31,249	27,200
Technology Application	7,634	7,914	18,070	12,869
Congressionally Directed Activities	12,870	-	-	-

PV Nanotechnology - Light Sensitive Dyes

Southwest Windpower SkyStream 1.8 kW

	FY'06 Actual	FY'07 Request	FY'07 CR	FY'08 Request
US DOE CROSSCUTTING:				
Federal Energy Management Program	**18,974**	**16,906**	**19,480**	**16,791**
Project Financing	6,759	5,935	8,509	7,935
Technical Guidance and Assistance	7,642	6,519	6,519	6,519
Planning, Reporting and Evaluation	2,574	2,473	2,473	2,337
Departmental Energy Management Pr	1,999	1,979	1,979	-
Hydrogen, Fuel Cells, & Infra-structure Program	**153,451**	**195,801**	**193,551**	**213,000**
Hydrogen Prod & Delivery R&D	8,391	36,844	34,594	40,000
Hydrogen Storage R&D	26,040	34,620	34,620	43,900
Fuel Cell Stack & Component R&D	30,710	38,082	38,082	44,000
Technology Validation	33,301	39,566	39,566	30,000
Transportation Fuel Cell Systems	1,050	7,518	7,518	8,000
Distributed Energy Fuel Cell Systems	939	7,419	7,419	7,700
Fuel Processor R&D	637	4,056	4,056	3,000
Safety and Codes and Standards	4,595	13,848	13,848	16,000
Education	481	1,978	1,978	3,900
Systems Analysis (incl PAE for FY05)	4,787	9,892	9,892	11,500
Manufacturing R&D -	1,978	1,978	5,000	
Congressionally Directed Activities	42,520	-	-	-

OH CONGRESS - PLEASE HEAR US .....

Geothermal energy is NOT a technology….it is a resource base, which we use different technologies to generate useful energy from. Some of those technologies may be more mature than others, but given that we are tapping less than 1⁄2 of 1% of the resource base, there is obviously still a lot of room for improvement.

The DOE argument (geothermal is a mature technology) is a false syllogism. Can't answered because it implies a false presumption, i.e. that geothermal is a technology. Hydropower is not "a technology" nor is solar, or wind or biomass….they are all renewable resource bases with multiple technologies being applied and developed to expand our use of them.

The **Geothermal Technologies Program** should support and facilitate achieving 100,000 of MW geothermal power production from the full range of geotherma l resources in the US -- both the near-term need to expand domestic geothermal energy production and the longer-term need to find the breakthroughs needed to a chieve this full potential of the resource.

Geothermal Technologies Program at $113 million in FY 2008 for the following activities:

- Advanced Geothermal Resource Characterization: $16 million
- Industry-Coupled Drilling: Recommendation: $50 million
- High Temperature Subsurface System Development: $4 million
- Geothermal Reservoir Engineering: $7 million
- Expansion and Development of Enhanced (or engineered) Geothermal Syst
- Oil and Gas Co-production Demonstration: $2 million
- Geopressured Cost Share Demonstration: $4 million
- GeoPowering the West $5 million
- New Concept Initiatives: $4 million

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The USDOE **Hydropower Technologies Program** must support hydropower resource a ssessments and environmental impact studies; RDD&D of new waterpower technologies, including ocean (wave, currents, thermal), tidal, and freeflow applications; and RDD&D funding for conventional hydropower project technologies, primarily for the advanced hydropower turbine program.

Hydropower Technologies Program at $22 million in FY 2008.

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The USDOE **Wind Energy Technologies Program** needs to support wind energy research and development for both small wind and large wind at the national, state, and local levels. For FY 2008, the Bush Administration requested wind R&D investments of only $40.1 million – a $4 million cut below current spending of $44 million. This funding request does not recognize the strong contribution that wind energy is making – and can make – to producing clean energy, new jobs, and significant reductions in global warming pollution.
At a time of heightened concern over global warming, the Bush budget proposal is clearly going in the opposite direction of public concern and the priorities of the House and Senate leadership.

<u>Wind Energy Technologies Program at $110 million in FY 2008.</u>

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The USDOE **Solar Energy Technologies Program** has established a target of making solar power cost-competitive with conventional fuels across all market sectors by 2015. Under this scenario, solar would provide hundreds of thousands of high-tech jobs throughout the US and would reduce natural gas demand on the order of billions of cubic feet. However, the current soaring growth of Germany, Japan, and China's solar industry means the United States must make substantial investments if it is to reclaim technology leadership in this critical sector.

Solar Energy Technologies Program at $250 million in FY 2008 for the following activities:

- Photovoltaics: $175 million
- Concentrating Solar Power: $50 million
- Solar Heating & Lighting: $25 million

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SKLAR ASSORTED (Crosscutting)

- Distributed Generation - enabling technologies and communications protocols (FERC) smart meters, multitechnology inverters $50 million
- Storage - both thermal and electric - salts and desciccants -- batteries and super capacitors and smart controls $100 million
- Resource Assessment - support industry for every renewable resource for every willing customer and government entity $25 million
- Outreach with States and local governments $25 million