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FOR IMMEDIATE RELEASE

Following the Policy Flow - Where Does This Money River Lead To?

With the uncertainty of changes in policy and scope looming for U.S. renewable energy, the delay of the 2012 Farm Bill, and the on-going debate in Congress concerning budget deficits and debt reduction measures, the future of federal funding for renewable energy programs for the short term is in question. The larger issue, however, remains: how will the funding and legislative support battle be resolved, and what are policy issues that the industry should use to plan in the coming months and years?

Westar Trade Resources Founder and CEO, Cindy Thyfault was recently interviewed by Biomass Magazine in Navigating the Political Scene for her expertise in US renewable energy policy, financing, and the Farm Bill Energy Title Programs.

Cindy Thyfault has been in business for over 18 years working in the value-added agricultural and renewable energy sector. She has assisted companies to obtain over \$900 million in federal, state, and local grants and loan guarantees. Her comments and insights below provide a comprehensive dialogue on current and future government policy: what has been working, what is still left, and what is in the future to come.

What are the policies/programs/grants that affect your clients the most in the bioenergy industry?

The policies that I believe have had the most impact on the sector are shown below. You can also see the agency and the legislation that has been used to implement the program.

Current Legislation	ARRA 2009	EISA of 2007	2008 Farm Bill Programs						Section 305, Rural Electrification Act of 1936; 7 U.S.C. 904, 935	DOE Budget Appropriations
Type	1603 Tax Grant	RFS2	USDA 9003 Loan Program	USDA 9007 Grant & Loans	USDA 9011 BCAP Grants	USDA 9008 BRDI Grants	Value-Added Producer Grant Program	B & I Loan Guarantee Program	USDA Rural Utility Service	DOE Grants
Pellets	X			x		x	x	x		x
Power	X			x		x	x	x	x	x
Thermal	X			x		x	x	x	x	x
Biogas	X			x		x	x	x	x	x

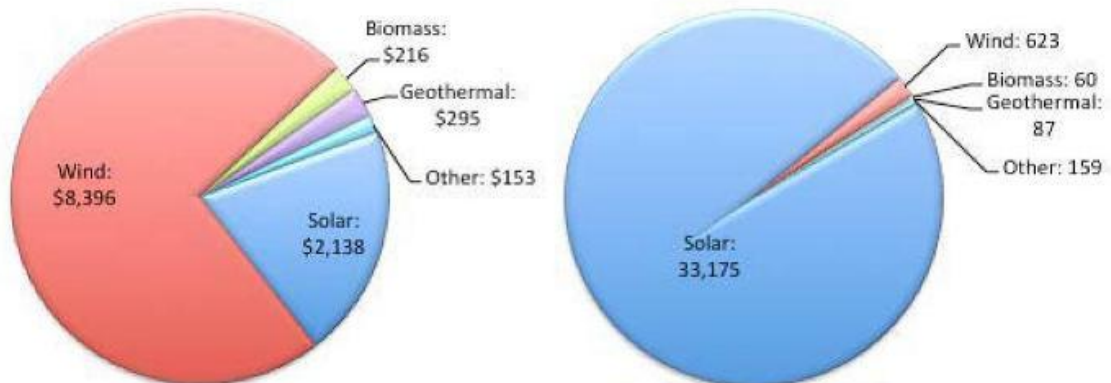
Advanced Biofuels		x	x	x	x	x	x	x		x
Chemicals						x	x	x		x

Which of those programs do you feel have been the most effective at giving project developers an opportunity (through a loan guarantee, a grant, a tax credit etc.)?

All of the programs have different advantages and disadvantages, but the six that have had the most effect include:

A) 1603 Tax Grant - \$11.6 billion

Through May 8, 2012, the 1603 Program had awarded \$11.6 billion to almost 38,000 projects.



Assuming 1603 awards equal 30% of total project costs, the program has supported, up through May 8, 2012, \$38.6 billion in total investments. Awards under the program have been made to all 50 states. Eight states have received over \$350 million in 1603 program awards, with the largest total award dollars going to Texas.

Source: NREL: 1603 Treasury Grant Expiration: Industry Insight on Financing and Market Implications

B) USDA 9007 Renewable Energy for America Program (REAP) - \$800 million (2003-2012)

The [9007 REAP Program](#) has existed in both the 2002 Farm Bill and the 2007 Farm Bill. It has assisted rural producers and small businesses in developing thousands of renewable energy and energy efficiency projects, and created or saved thousands of jobs.

Because of the high initial capital outlay for these projects, the [REAP loans and grants](#) allow for a longer-term loan for these type of investments that can be paid for with the energy savings or profits from the investment.

Since its inception in 2003, [REAP](#) and other USDA programs have helped about 13,000 rural small businesses, farmers, and ranchers save energy and improve their bottom line by installing renewable energy systems and energy efficiency solutions that can save enough energy to power nearly 600,000

American homes for a year. Since 2003, [REAP](#) has funded more than 1,000 solar projects and over 560 wind projects.

C) USDA 9003 Biorefinery Loan Guarantee Program - \$1.08 billion

The [USDA 9003 Biorefinery Program](#) has been very successful at assisting in the construction of advanced biofuels projects. Currently, nine projects have been awarded with a combined total loan guarantee value of over \$1 billion. In addition, this leveraged another \$1 billion in equity and provided a bridge for technology risk for a first of a kind commercial facility.

Success has been seen with Sapphire Energy and Eneos Bio currently in the Phase 1 testing and commercialization phase, and Zechem, Enerkem, Coskata, and Chemtex in the demonstration phase. Fulcrum is in the final design phase, while Imperium is under final review. This program has been instrumental in bridging the technology risk gap for financing, and getting some steel in the ground as well as establishing commercial production targets for RFS2.

D) RFS2

Because the development timeline for advanced biofuels is so long, and the barriers to entry does include several key financing stages, including pilot scale, demonstration, and finally commercial scale, the RFS has stood as the best worldwide development policy platform.

The stability and strength of a long-term policy like the RFS has encouraged investors to make these long-term investments with the goal of an assured, long-term market in the future. According to Biofuels Digest's annual recap of 2011, "Biofuels DealFlow," total private sector investments surpassed \$10 billion in 2011 of which \$3.8 billion was in new biofuels financing or in advancing early-stage companies. The U.S. leads the world as the leader in new investment, with 22 transactions totaling \$1.104B. If the RFS were to be modified or eliminated, investment dollars would be quickly diverted into other sectors.

E) USDA Business and Industry Guaranteed Loan Program - \$1 billion for 2013

The [B & I Program](#) is noteworthy because it does have mandatory appropriations each year, and can be used for a wide variety of projects in rural areas, including all of the types of renewable energy projects that we are examining. One of the recent drawbacks was the lowering of the lending limit from \$25 million to \$10 million. As most renewable energy and biochemical projects are usually over this limit, the [B & I program](#) will have a diminished ability to commercialize the industry in the near term.

F) USDA Rural Utilities Service - \$263 million in 2012

As recently reported in Biomass Magazine, the Rural Utilities Service (RUS) recently awarded \$263 million in loan guarantees to three biomass power plant projects. As other sources of financing are drying up or changing the in the renewable electricity space, this program is a good one to consider for future funding if a company is committed to walking through the process and can live with a slow approval process. Funds are available as the RUS has been a fixture at USDA since 1936, and funding for this program is provided by interest and principal payments from other loans made over the years to fund most of the rural electric and telephone cooperatives.

Which programs are expiring or appear to be on their way out that you wish could remain intact?

The programs that have been critical in developing a platform for the renewable energy industry, and incentivizing this development and implementation at a more rapid pace, are the programs highlighted above. In addition, it is important to note that all of these projects incentivized the development of commercial projects that added thousands of jobs, provided sustainable and clean renewable energy, and enhanced and created new rural economic development.

However, to meet the RFS targets, more bioenergy technologies need to be commercialized. The [USDA 9003 program](#) is needed to be reauthorized at meaningful levels with mandatory appropriation over the next five year period to assist in building commercial refineries to meet the RFS targets. The [USDA 9007 program](#) also needs to see significant mandatory funding to continue to develop renewable technologies in rural areas and provide a stable platform of development. In addition, all 2012 Farm Bill Energy Programs and related programs mentioned above need to have multi-year, significant mandatory funding levels established to incentivize investors and developers to grow and build this important industry, and allow for the government agencies to properly plan and prepare for the future.

It has been predicted that there would be a tremendous downturn in the number of renewable electricity projects if the 1603 grant program is eliminated. GTM Research estimated total financing needs for renewable energy in 2013 will reach roughly \$50 billion. Assuming roughly one-half of that value represents monetized tax benefits, approximately \$25 billion in tax equity or similar investment will be needed, significantly exceeding the investment appetite of current tax equity providers. This will have a huge negative impact on the growth and commercial application of renewable electricity projects and investment for years to come.

What are the issues that you believe are worth following in the coming year that could affect some of the policies that you believe are working?

The two main issues of utmost importance are the debate and discussions underway of modifying the RFS and the concurrent debate concerning the 2012 Farm Bill Energy Title. The outcome of these two debates will set a new standard for the US renewable energy policy for years to come.

Additionally, there is a lot of pressure coming from the international community concerning "food versus fuel." We can't ignore this dialogue and discussion and the effect that it has on the US policymakers and legislators.

Having said that, it is important to note that for technology providers and developers of all forms of biomass technologies, the "rules of the game" are changing and new rules will now apply to investment and financing of these projects. The true winners will be the technologies that can provide products at a sustainable price parity without government incentives, developers who are willing and able to partner with larger investors who may also be customers or feedstock providers, and technology providers who develop partnerships and utilize the best parts of the technology chain, as seen in the recent partnership of Chemtex and Novazymes. In addition, the most successful companies will be making these changes now, and not waiting until after the RFS and the Farm Bill debates are finalized, which could take months or even the best part of this next year.

Which bioenergy-based policies need to be overhauled or changed?

There is growing technology development in the area of biobased chemicals, and there are major initiatives underway to have some of the biofuels programs include biobased chemical production as a funded category. The worst scenario that we could see in the near future is that there is no Farm Bill Energy Title included. The second worst scenario is that biofuels and biochemicals are structured in the same categories, with discretionary funding, and that the programs would then be oversubscribed. A second consequence of that scenario is that the biofuels industry then fails to meet the RFS2 targets and that it these targets are reduced or eliminated. Congress, the EPA and the USDA is putting the whole industry in jeopardy by not following through with the RFS.

The biochemical industry holds tremendous potential, and there are tremendous potential upsides for the biofuels and biochemical industry to co-exist and utilize these technologies to provide lower-cost fuels and chemicals.

A change that I would heartily recommend would be an expedited review process for the [USDA 9003 program](#). The majority of projects submitted in the May 2011 round of funding have just recently received loan guarantee agreements. Only two projects, Sapphire Energy and Eneos, have been constructed. Because the review process is shared by USDA, DOE, and OMB, a more seamless, transparent, and customer service-oriented approach would assist in implementing the process of approval and allow for the evaluation and review process to proceed in a more timely manner.

Research and development dollars have never been more important to establishing lower cost technologies, better feedstocks, and more efficiency in the marketplace. However, the majority of these dollars need to be directly tied to commercialization performance in the short term as opposed to basic research and development. We need to create a strong, vibrant commercial industry and show the jobs and the revenue that will be multiplied with this type of R&D investment.

Are there any new policies, programs, funding opportunities that you want your clients to be aware of for 2013?

DOE requested appropriations for 2013 are around \$270 million. Most of the other programs that will impact my clients are in the 2012 Farm Bill. There are no new programs or planned funding that are not subject to congressional appropriations, so the 2013 appropriations budget will also be a key indicator of future plans and programs. Many in the renewable energy industry, including myself, have been writing letters and contacting their congressional leaders over the last year about these programs. I urge everyone in this industry to continue your efforts and demonstrate the importance and the success of prior programs.

For 2013 and your time spent working on bioenergy related issues, where do you feel the majority of your time will be spent?

Two years ago I saw a broader opportunity for renewable energy development internationally. I have been working, traveling and [speaking](#) at a wide variety of [international conferences](#) and meeting people from all over the world. I have been to the regions of the world where there is a tremendous need and opportunity for the technologies that we have developed here in the US to be used in regions where they do not have access to the plentiful oil, coal, and natural gas that we currently have here in our country. I have also been working hard to develop a financial platform to rapidly take advantage of this opportunity.

My prior work over 18 years was primarily in the field of [government-backed financing](#), but I have been broadening the financial base for my clients to include financing programs that can be used both nationally as well as internationally and don't require government guarantees. We are actively working in many countries to develop and finance good, sustainable projects. In addition, I am serving on several international committees, including CAAFI and ICAO, to develop policies and business opportunities for renewable jet fuel and other marine fuels that will also serve as a platform for the renewable energy industry worldwide.

Last one Cindy. Is the majority of success seen by your clients (Chemtex, Fulcrum, etc.) because of certain policies, or is it because of something else?

My most successful clients have a vision for the future that includes sound economics, technology, and sustainability. I am very privileged to be able to work with such a high caliber of experienced professionals that are brilliant in their conception of both creating a technology breakthrough and the ability to manage and attract the financing of a start-up venture from "birth of an idea" through commercialization. Because we prepared the feasibility studies and the loan guarantee packages for the majority of the [USDA 9003 clients](#), I know that these awardees have been successful in receiving awards due to their commitment to manage and mitigate risk, and then to navigate the governmental requirements and standards necessary to enhance their project. Above all, they believe in what they are doing, and are willing to do what it takes to succeed.

Other policy issues that have contributed to their success include their skillful navigation of public-private partnerships and other leveraging tools. It is now more important than ever that our US companies take the lead worldwide in developing a sustainable renewable energy platform, while keeping jobs in the US, and exporting our leading-edge technologies to friendly trading-partner countries.

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