

## Argus Q&A: Karl Gawell

*Karl Gawell is executive director of the Geothermal Energy Association, which represents US companies that are developing geothermal resources worldwide for electrical power generation and direct heat uses. He has held this post for 13 years. Before that he was the American Wind Energy Association's director of government affairs. He has also held senior positions in several national environmental organizations, including the National Wildlife Federation and the Wilderness Society, and has held several congressional staff positions. He was also an analyst and project manager for the US Solar Energy Research Institute (now the National Renewable Energy Laboratory). He recently served on the Renewable Energy Advisory Board of the US Export-Import Bank and has been an adviser to the Environmental Protection Agency. In this interview, edited for length and clarity, Gawell spoke to Argus about developments in the renewable energy sphere.*

**Argus:** You were recently elected chairman of the Obama administration's Renewable Energy Advisory Committee. Can you talk about this role and the administration's renewable energy export initiative, which is targeting \$10bn or more in annual exports?

**Gawell:** The secretary of commerce [Gary Locke] has established an advisory committee to support the administration's renewable energy export initiative. I was elected chair at the committee's first meeting earlier this month and will be helping the group provide the secretary with input and recommendations that can be tracked and measured to help achieve a proposed doubling of US renewable technology exports over the next five years.

We have around 20 committee members, representing an array of industries from wind, solar and hydropower to biomass, energy efficiency and landfill gas. The administration's export initiative has bold aims and many agencies have committed to supporting it. This is a promising development as we have not had a directive before to work across so many different agencies, and in the past government fragmentation was a problem with exports. But we need to fill in more details and press the agencies to move forward and support its goals.

**Argus:** You have said that the mid-term elections support a positive outlook for geothermal energy. Yet many Republicans seem wary of increased spending at a time when the renewable sector wants continued support. Can you elaborate?

**Gawell:** The election highlighted overarching concerns – with the federal deficit at the top of the list. Many initiatives we are interested in will run into problems as there is not enough money for everything. But the tenor of the House Republican leadership has yet to be determined. We have had discussions with the staff of House Republicans who are interested in what they can do to help geothermal energy. I also think there will be more interest now in making sure federal agencies are doing their job. A divided Congress can work to your advantage if the federal agencies are part of your problem. For example, there have been a lot of problems with the Department of Energy's loan guarantee program over the past year and a Republican House would have been more critical about its poor performance. Federal leasing and permitting also continues to be a nightmare for geothermal projects. I expect incoming representatives in the House to be more sympathetic to the industry's problems. For instance, the secretary of the interior announced a fast-track process a year ago for certain renewable energy projects. In the end it applied mostly to solar projects and only to Arizona, California and Nevada. It did some important things but was very limited. We would like to see that fast-track process adopted across the board for renewable energy projects that qualify. Preliminary discussions we have had with House officers indicate they are very receptive about how we can broaden and formalize the fast-track process.

**Argus:** Where do you think things will go on tax credits for renewable energy and how can election wins benefit the industry?

**Gawell:** The question on everyone's mind about the new Congress is where it will stand on tax credits. We understand that there are no objections to geothermal tax credits among House

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Republicans. This is not a philosophical issue, any concerns would be driven more by the deficit. I suspect they will also look at existing tax credits to see how effective they are. The geothermal tax credit established in 2005 has been effective and we can make that case. A production tax credit established largely for the wind industry in 1992 was expanded to geothermal from the end of 2005. So we have seen a dramatic rebound in geothermal projects in the US since early 2006. As of April 2010, there were 7,057MW of new geothermal power plant capacity under development in the US, which will significantly expand the existing installed capacity of 3,087MW. There has been an average increase of 20-30pc/yr in new projects under development and the tax credit played a large part in that. Geothermal projects are high cost, so developers must pay more upfront – capital cost can be three times the cost of a comparable gas project. When completed, the price of electricity is good and supply is very reliable.

But we saw the number of projects moving into the construction phase fall off significantly in the 2008-2009 period, largely due to the banking crisis because a geothermal project can take five years to complete. In the early period you are using your own money or venture capital, but during the last two years when you are in construction you do most of your spending and seek a commercial loan. With the financial collapse, investors were simply 100pc risk averse. So the requirements they had for geothermal projects went up and the tax credit market virtually disappeared. Tax equity partners usually acquire your tax credit at something of a discount - so that they effectively invest in a project and become a partner. But it can take as much as six months to work through the legalities of setting up a tax equity deal so that adds to transaction costs. Many of our companies also had only limited returns and could not make good use of the tax credits. When investors became risk averse, government incentives like the tax credit became less effective. In the past two years there has been a limited regrowth in the tax equity market. But the Treasury cash grant program has allowed investors to


take advantage of a cash reimbursement for investment costs instead of a tax incentive. The grants meant companies no longer had to find a tax partner that was profitable and could use a tax credit. So from our perspective it is important – as it was in 2005 for geothermal – to get the same treatment as other technologies. So for us it has been a combination of state renewable energy standards that have created a market and the tax incentives that have helped geothermal since 2005.

**Argus:** Over the next few years, what are the chances of a national renewable energy standard versus a national clean energy standard that includes nuclear and clean coal?

**Gawell:** I think a renewable energy standard is not very likely in the coming years but a clean energy standard that includes nuclear and coal may well move forward. Most proposals for a clean energy standard are high – like 50pc by 2050 compared to say 20pc for a renewable energy standard. Ironically a clean energy standard stands a chance of passage because it can be written in way that benefits everyone. But then the question can be asked what you are really doing other than giving a green veneer to everything. My board companies do not object to a national clean energy standard but they feel it could be advantageous to geothermal if the standard also recognizes the value of base load power to the grid, which is something renewable energy standard proposals never did.

The current political line-up in the House and Senate is likely to favor a clean energy standard and it could pass at least one house in the next Congress. But it does not serve the purpose of a renewable energy standard. One of the reasons why a renewable energy standard was important was because utilities were mandated to get renewable energy power, encouraging them to approach smaller and more dispersed providers that are more time consuming to deal with than one big coal-fired power supplier. This helped overcome the barriers that renewable energy

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projects faced in securing power purchase agreements – that they were too small, too uncertain and too new for many buyers. This gateway to the market could get lost in a clean energy standard.

**Argus:** In the absence of a national renewable energy standard, will the renewable sector be pushing for more state action?

**Gawell:** The initial reaction will be to put the emphasis back on the states. But renewable energy advocates need to re-evaluate their strategy and objectives. A number of people are saying we must avoid the roller coaster ride of renewable energy policies and achieve sustained growth and exports to ensure new technology is adopted and prices are reduced. For that you need a sustained policy. There have been tax credits and grants up to now but that could change because of federal deficits. It is time to re-evaluate our approach.

**Argus:** Which states are doing the most to promote geothermal? Are California and Nevada still the main areas for new generation?

**Gawell:** California is first in terms of capacity (nearly 2,566MW) and Nevada (just over 433MW capacity) has the most new projects coming up with around 86 under development. But Oregon is also coming up fast and Utah has a strong interest in geothermal — both will try to give California and Nevada a run for their money. Oregon and Utah have been very supportive of

geothermal at state and local levels. Oregon has a broad series of programs from tax incentives to loan assistance and plans to streamline its geothermal drilling permitting process. It is interested in a broad mix of geothermal resources – from utility-based power projects to heating and taking universities off-grid with small power units. So it has a more robust program in the way it uses resources.

**Argus:** How important is the DOE loan guarantee program for your sector and would you like it retained?

**Gawell:** There are two issues under the loan guarantee program – one is legal authority for the program and the other is funding. There are two programs – section 1703 for new technology and section 1705 for commercial projects. The authority to accept applications for 1705 expires this year and most do not expect it to be extended. But 1703 innovative technology loan guarantees will probably continue. Expectations were heightened by the 1705 program because it was introduced when the bottom had fallen out of the market and the problem was attracting commercial investors. But it took DOE a year-and-a-half to work through all the rules. By the time people were ready to start processing projects, the program was ready to expire. So loan guarantees proved more complex than expected, and people did not have enough time to work on them.

I think 1705 could be worth revisiting as we look at cost-effective ways of promoting new development. No one in congress has been thrilled with the performance of the loan guarantee program which was overwhelmed by bureaucracy. But energy initiatives cut across party lines and are often a response to a crisis.

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