

UK Energy Policy Review

Blair confirms “energy back on agenda with a vengeance” as review gets green light
Greenpeace protesters disrupted Tony Blair’s speech on Tuesday 29 November during which he announced an energy policy review thought likely to put a new nuclear build at the centre of the government’s energy review.

The Prime Minister’s speech at the CBI conference in London on 29 November was delayed for almost an hour by Greenpeace protestors who climbed on the venue roof where the speech was due to take place. The two protesters, wearing yellow jackets over their suits dropped stickers onto the delegates below and unfurled a banner saying:

“Nuclear: Wrong Answer.” After a 48-minute delay, Blair made his speech in smaller side-hall and told business leaders that energy policy is “back on the agenda with a vengeance”.

The PM said the energy minister Malcolm Wicks would lead a wide-ranging energy review, adding that a policy statement on energy would be published in the early summer of 2006 and will include “specifically the issue of whether we facilitate the development of nuclear power stations”. Mr. Blair told the conference “the future is clean energy and nations will look to diversify out of energy dependence on one source”. He added, “by around 2020 the UK is likely to have seen the decommissioning of coal and nuclear plants that together generate over 30pc of today’s electricity supply.

Some of this will be replaced by renewables but not all of it can.” The Prime Minister also sounded confident that ongoing talks in Montreal on a successor agreement to the Kyoto protocol would produce tangible results. He said “I believe there will be a binding international agreement to succeed Kyoto when the protocol expires in 2012 that will include all major economies”.

Blair’s comments were welcomed by the CBI, which published a paper, *Powering the Future*, on 28 November calling for the government to “deliver clarity and a decision on nuclear within a year” as a matter of urgency. The CBI’s Digby Jones said, “He has started the debate, that’s just what we wanted. That is a good thing.” But a word of caution came from BWEA chief executive Marcus Rand who commented “this review creates a golden opportunity to put renewables at the heart of our energy future and establish a firm 20pc commitment by 2020.... and lay out a clear path to deliver it.

This review must be as much about delivering the potential of renewables as it is about deciding on new nuclear.”

But environmental campaigners were predictably dismissive of Blair's speech. Friends of the Earth saying he had fallen for the nuclear industry's "slick PR campaign". Its director Tony Juniper said, "the UK can meet its targets for tackling

Climate change and maintain fuel security using clean, safe alternatives that are already available." Defending the protest, Greenpeace director Stephen Tindall said, "Blair is trying to launch a new nuclear age and we are here to stop him. Nuclear power is not the answer to climate change – it's costly, dangerous and a terrorist target. Today's new review is simply a smokescreen for pushing his newfound enthusiasm for nuclear power."

The Conservatives were also critical about the timing of the review, and shadow trade and industry secretary David Willets said "to launch an energy review only now is testament to Labor's failure to tackle the problem a long time ago", but generally concurred with the concept of examining the role of nuclear power. "We fully understand that to get energy investment, people need to be confident of a long-term framework", Willets told the FT. Liberal Democrat environment spokesman Norman Baker said he suspected that Tony Blair has already decided to go ahead with nuclear power and said "this review will serve little purpose if the prime minister has already made up his mind." He added "What we need is to rule out an extension of nuclear power now. This will provide the certainty that the industry so desperately needs, and will allow us to focus on cleaner renewable energy."

The announcement has been awaited for some time, and was made against the backdrop of the previous week's supply and price concerns. It also clears the way for the government to deliver its decisions on the climate change programme review, which will evidence the shortfall against carbon targets under current programmes. The changing supply background, especially the earlier transition to net gas importer and the pricing turbulence that has caused, has also meant that the further review was inevitable.

Wicks says "difficult decisions ahead" for energy review

The energy minister insisted last week that the energy review will be wide-ranging, and not just a "nuclear review".

Energy minister Malcolm Wicks said tough decisions – including reaching a view on the merits of new nuclear build – have to be made after he was tasked by Tony Blair with leading a review of energy policy, and bring forward policy proposals by early summer 2006.

The terms of reference are broad in scope, including aspects of both energy supply and demand, but will focus on policy measures to help deliver policy

objectives beyond 2010. The review is being positioned as a longer-term update, not a re-review.

Speaking after Blair's speech at the CBI conference in London on Tuesday 29 November, Wicks said "the Energy Review is taking place against a background of strengthening evidence on the nature and extent of climate change and increasing concerns about the future security of UK energy supplies. This is the right moment to assess where we are in relation to achieving the goals set out in the 2003 Energy White Paper. The review will explore all the options open to us, taking into account the important international context. There will inevitably be some difficult decisions and tradeoffs to be made in arriving at the right package of policy proposals."

A cross-departmental team based in the DTI, with officials drawn from key relevant departments and the Prime Minister's Strategy Unit, will take the review forward. It will draw on expert support and analysis both within and outside the government. Progress against the four goals set by the 2003 Energy White Paper will also be assessed. A formal consultation phase will start around the turn of the year. The consultation will be launched with "a statement of current evidence on the White Paper goals" and with the government's plans for engagement with the public and stakeholders.

Mr. Wicks insisted that the review is "a wide-ranging energy review and is not a nuclear review". He said "there is not a single solution and it is not a choice of nuclear versus renewables. In looking at the nuclear option there are a number of key factors such as the economics, safety and nuclear waste. For too long governments have dodged the issue of what to do with nuclear waste. Now we have to make decisions quickly because we have an urgent timetable. By next summer we expect to present the Prime Minister with judgments about the future of energy policy." The review will also provide an updated view on new and emerging technologies, specifically including carbon capture and sequestration. The review team will work closely with the Stern Review team, which is looking at the economics of climate change in a wider global context on behalf of the Treasury, and will also have access to the work carried out on the soon to be concluded climate change programme review.

The government seems eager to start the build consensus on the nuclear option, and it was reported last week that briefings had begun of the opposition parties, starting with the Tory party. David King, the prime minister's chief scientific adviser, has privately briefed the Conservatives on nuclear power, according to the FT on Tuesday 29 November.

The struggle to get inside key political opponents within the government also seems to be underway. Nuclear power is not a "sustainable" energy source but may have to be embraced as a means of combating climate change and

securing supplies, environment secretary Margaret Beckett conceded in an interview on ITV's The Jonathan Dimbleby programme.

Mrs. Beckett warned, however, that any decision to pursue a new generation of nuclear stations must not result in a dip in investment in renewable energy sources.

The government signaled the imminence of a further energy review shortly after the general election. There has been a well-managed process since of lining up key stakeholders in support of the process and to demonstrate that the international context has changed, with the chief scientific adviser taking a prominent position. Because of this, the government will continue to be exposed to allegations that it has already done a "nuclear deal" given the highly synchronised nature of the build up to the announcement. But it is important that the review process – six months rather than the two years leading up to the 2003 white paper - is conducted with rigor and a large measure of transparency if there is to be widespread acceptance of the outcomes.

It is a little misleading to present the review - as the government has done - as a further, deeper look at the post 2010 period. A wide-ranging review is necessary because of the degree of change that has occurred over the past two and a half years.

Policy makers defend UK business market at Energywatch seminar

Energywatch held a well-attended event on purchasing issues for public sector and small business buyers on 30 November. It drew input from energy minister Malcolm Wicks and Ofgem CEO Alistair Buchanan. Whilst they were keen to put recent market developments in context, Energywatch's primary objective for the event was to obtain delegate input into the process for shaping its future services for these customers.

One of the commitments arising from last winter's Trade and Industry Select Committee investigation was that efforts be made to inform customers from the public sector and small business of market opportunities and become more informed of the issues they face. Supported by DTI, Energywatch organised a one-day workshop for these customers on 30 November and attracted high profile input from the energy minister and Ofgem's CEO. For Energywatch, input from the day will be used to shape its workplan for the next three years, plus more specifically an action plan of measures directly resulting from the small-medium enterprise (SME) initiative are to be formulated over the next two weeks.

Alistair Buchanan acknowledged that there were issues in the market that were impacting competitiveness at the moment. Specifically commenting on market

liquidity, he said that outside the immediate short-term market, this was “drying up” and it is “right to be worried about” this. Buchanan added that we should be very careful about

Assumptions that the UK had all of a sudden become a very uncompetitive place and that, if one looked at City analysts price projections for a few years out, as an industrialist “you would want to be here as opposed to anywhere else”.

Moreover, we need, in Buchanan’s opinion, to be mindful that other energy markets are also seeing significant price rises as well and that one should be “careful of the apples and pears syndrome”: not taking account of higher nonwholesale costs in other markets.

Even so, customers are in his opinion “quite right to be concerned and right to question” current circumstances, indeed he emphasised a desire for input from delegates to Ofgem. Buchanan highlighted areas where Ofgem is taking action, most notably:

- Asking NG for information on its activity during last week to assess if it in some way contributed to prices;
- Asking the EU Competition Commission to investigate interconnector flows and if member states through their local rules might be distorting the market; and
- Supporting improved information to the market including the gas-balancing alert and the DTI’s offshore information release programme (conspicuously Buchanan made absolutely no reference to Energywatch’s proposed UNC modification 006 on sub-terminal information).

For his part, the minister wanted to “correct some of the myths resulting from alarmist” comment on recent events. Wicks commented that:

- The Met Office forecasts which seemed to be triggering such concern were forecasting a 6pc chance of a 1995-96 winter rather than anything more severe;
- It is his opinion that some intensive users may be paying significantly more for their energy than continental rivals;
- NG’s winter outlook states that only in severe conditions will demand turn down be mandated and only then from major industrial users - although he did remark that he was very concerned to see such circumstances materialize so early in the winter, which might be difficult for the users involved but “from the national point of view was the least cost way of managing supplies”;
- he was very conscious of the issue of pricing, but that the market had delivered in the past. Whilst things might be tight this winter and possibly next there was optimism that “we will soon be out of the lean period and may indeed see a gas glut by 2007-08;” and

- He would be looking for a commitment from his fellow energy ministers to implement properly established EU policy on energy market liberalisation at the Energy Council meeting on 1 December.

The minister also set out some ideas for purchasers to consider and took questions from the floor. These included an expression of support for consortium buying in both public and private sectors. He expressed confidence that other EU member states would implement liberalisation, and in reply to a question on the British market structure said that "may be some bits of it are a bit too oligopolistic for the good of the industry."

Both Buchanan and Wicks appeared to be aiming their remarks at the wider business market, although they clearly also have relevance for this event's target audience. Indeed both they and Energywatch appear to want to engage with business users Beyond the major user sector.

For Energywatch, the proof of the event's effectiveness will be in the delivery of the action plan it says it will produce in two weeks' time. The initiative itself focusing on good practice and awareness is timely as the SME sectors tend to see much lesser competition than other parts of the non-domestic energy supply markets, but they do not benefit from the regulatory protections enjoyed by domestic customers.

2006 Will be Interesting

December 21st 2005

Oil companies may be gearing up for a buying trend. And natural gas producing companies could be the apple of their eye. ConocoPhillips' \$35 billion bid for Burlington Resources may typify a potential trend; one based on the need to acquire valuable assets necessary to meet expected future energy demand.

High commodity prices mean that oil companies have excess cash. The thinking is that if they see an opportunity in the exploration sector, they may take it. Those oil conglomerates that already have a foothold in the utility industry are the ones most likely to seek assets that would complement their existing businesses. Many natural gas entities need to strengthen their financial backbone and credit ratings while oil companies want to extend their economies of scale and produce new sources of revenue.

"We think it's very possible the industry will see some large merger and acquisition deals next year, both in the U.S. and globally," said Rick Roberge, with PriceWaterhouseCoopers' Houston-based energy practice. "Many of the larger companies have been content to sit on their cash war chests in 2005. But at some point, commodity prices will settle and companies will begin drilling

higher risk projects. That's when consolidation will accelerate because of the need for larger balance sheets to reduce those risks."

The energy practice says that merger and acquisition activity in the broader energy sector could skyrocket in 2006 -- exceeding the \$383 billion record set in 1999. In 2005, such activity will amount to \$367 billion, adds Thomson Financial.

Oil companies are already active in the utility market: Most deals have been structured so that a utility will buy all of an oil company's natural gas and sell it to an end user in exchange for some percentage of the profits, typically around 50 percent. Others are constructed so that the utility will acquire the rights to all of an oil firm's natural gas supplies, in exchange for cash and stock options.

At the same time, Big Oil is already in the natural gas business, which is currently the electric utilities' number two-fuel choice. About 30 percent of those natural gas discoveries are being extracted from the same holes oil companies are finding their petroleum. It wasn't so long ago that oil companies thought their natural gas findings were unprofitable, even going so far as to have them burned off. But they have since seen the light. Gas is now profitable. In this country, the commodity goes at a premium and has been in demand. Overseas, the oil companies already have a foothold.

There's "room for the big oil companies that want to get into natural gas, and even more so if the country commits to the building of liquefied natural gas," says Robert Stratman, vice president for ABB in Wickliffe, Ohio.

Excess Cash

To be precise, the top 20 energy companies now have about \$75 billion in cash, says Roberge with PriceWaterhouseCoopers. It's a less risky proposition to use some of that money to buy entities that are already in the natural gas production business than to develop those wells themselves. The problem all companies will face is how to bring on additional production to offset capacity declines -- as well as meet possible demand growth at natural gas prices as high as \$15 per million BTUs.

Clearly, oil and gas prices alike will remain high over the next few years because there is not enough supply coming on line. But there is little doubt that those prices will eventually fall, albeit at levels much higher than consumers have traditionally known. There are roughly 3,000 trillion cubic feet of stranded natural gas, for example, that has already been discovered around the globe -- some of which could find its way to the U.S. market. Also, alternative fuels are currently being developed and may come on-stream.

"In general, it is a very risky time for companies to acquire reserves in the U.S. because of the fear of 'buying high, selling low,'" says Paul Grimmer, president of

Eltron Research in Boulder, Co. "That said, the U.S. gas market is interesting and will remain so. U.S. gas consumption is more than 60 billion cubic feet a day, equivalent to more than 12 million barrels/day of crude oil."

Some say that the expected wave of mergers among energy units is part of an ongoing trend to pick up key assets and beef up balance sheets in an effort to offset some high-risk projects. The trading of assets will continue and particularly among oil and gas exploration units, says Jim Halloran, a Wall Street analyst with National City Bank in Cleveland. And, Big Oil may be looking at more than natural gas developers; those companies may be eying oil sands players. Oil sands are a stratum of sand or sandstone containing petroleum.

"The short answer is that this deal -- ConocoPhillips and Burlington Resources -- is just one in a continuum of transactions," says Halloran. "This deal does not push any of the potential buyers to look harder than they already have."

The scenario is playing out. Connacher Oil & Gas just agreed to buy Luke Energy as a way to lock in natural gas costs for its planned oil sands project in the Canadian province of Alberta. In this case, Luke Energy's gas supplies would be used as a hedge against the oil sands supplies -- 10,000 barrels a day -- needed by Connacher. Connacher adds the deal enables it to lock in the gas it will need for production as well as gives it extra gas to sell in the market.

High commodity prices are hurting consumers and giving oil companies ample cash. But such a situation won't lead to an immediate increase in either oil or gas production, given that companies can't bring large amounts of supplies on-stream anytime soon. Moreover, they tend to view the economic landscape 10 years out - not in one or two year cycles. Eventually, prices will moderate and the incentive to drill will decline along with it.

The same economic fundamentals, however, do motivate well-heeled energy enterprises to search for valued assets. And right now, natural gas producers are appetizing and may be a logical fit for Big Oil. That's why 2006 is expected to be an active year for those in a position to buy.

Devices and desires – defining the energy policy review agenda

It has been acknowledged for some months now that a further energy policy review was inevitable, and the only real mystery is why it has taken so long for government to confirm the terms of reference. Perhaps this is all the more

surprising as the six months it has taken to frame the terms of the inquiry compares with a six-month delivery window that has now been set, given that energy minister Malcolm Wicks is tasked with delivery by early summer. Continuous review the reality is we have never really been out of review since the energy policy white paper, and several important building blocks are already, if not in place, at least well delineated. Take the four key energy targets set in 2003 as staging posts towards the 2050 60pc CO2 reduction target. There has been significant development since:

- Renewables – there have been three reviews of the Renewables Obligation effectively one a year. Two have been scheduled, one a technical review and one required under the European directive but as yet incomplete (which is also pushing for mechanisms to enable inclusion of renewable heat) - and one in between to consider teething issues. Additional incentives have been conceded to co-firing, and support programmes for a range of more speculative technologies have been increased, and now embrace biomass and marine technologies;
- Emissions trading – the first phase has been implemented, but there has been continuous focus since on phase two, especially whether the scope of the scheme should be extended to new sectors, including aviation, and how allocation processes could be flexed; and
- Domestic and business energy efficiency – there has been a review of phase one of the energy efficiency commitment, and tighter targets set for phase two. The government has just concluded a lengthy innovation review, and funding to both the Carbon Trust and Energy Savings Trust has been significantly increased. The government has extended the Community Energy Programme and is considering specific new incentives to stimulate take up in SME and public sectors. Other policy initiatives have also provided fuller definition in areas that were considered lesser priorities in 2003:
- The government has just established a partnership with the Norwegian government incentivising the use of carbon capture and sequestration technology to increase offshore oil production, and recently released its Carbon Abatement Technology Strategy with a view to kick-starting action in longer-term development outside enhanced oil recovery, which bore the brunt of attention in the 2003 review;
- The government has initiated a review of clean coal;
- There has been introduction of the renewable transport fuel obligation and enhancing capital allowances for biofuel production; and

- Incentivisation of micro generation has increased through a plethora of new incentives and awareness initiatives, and is well advanced with development of a micro-generation strategy.

And of course there is the climate change programme review underway now for over a year, which is expected to see the light of day mid to late January.

These frantic activity levels within government can be read in two different ways. Either policy makers have for some time acknowledged the deficiencies of the white paper by their actions; alternatively these actions provide the flesh on the bones of what ultimately were a high level vision. After all white papers are strategic directives, not implementation plans. The reality is, we think, probably a mix of the two.

Nuclear insurance

It is a little disingenuous of government to suggest that the new review is not a nuclear review. In a world of depletion of indigenous fossil fuel resources and price shocks, new nuclear was always going to be the default policy just as it was in the 1970s because of its critical mass, and this is precisely why we have a new energy review now.

But many of the issues that now need to be addressed are genuinely new to policy makers. The 2003 review touched on economics of nuclear power somewhat cursorily, before quickly moving on to delivery mechanisms for non-nuclear solutions. This time round the context of the debate is very different. Security of supply is not now considered only about strategic security – the term used in 2003 to describe facilitating delivery of adequate supplies of gas from Potential unstable parts of the world. It is about diversity of supply at home and underwriting supply from non-fossil sources. The political emphasis has changed, and the emphasis is not whether nuclear is viable but what needs to be done to tackle the bottlenecks to its achievement.

Let's assume that waste management is not a show-stopper issue and that CORWM brings forward credible proposals that can be sold politically for dealing with long-term waste. (In this context the timing of its delivery of proposals in the middle of next year is surely more than a coincidence.) Let's also assume that the government's political managers also believe that historic public opposition can be overturned. What are the substantive issues for the review?

Valuing carbon

The key issue is how should a carbon subsidy be administered. There appear to be four routes.

First there is a carbon (or energy) tax levied on all sales. As with the Non Fossil Fuel Obligation, this is the simplest mechanism. But it is also the most politically unpalatable for no other reason than it being a tax. With the Climate Change Levy also remaining in place at least for the foreseeable future, there are also issues of double coverage.

Second it would be possible to increase input tax to those burning fossil fuels. We already have a precedent for this through the EU emissions trading scheme, though allowances would have to be paid for rather than grandfathered as at present. The regulatory requirement from administering such an arrangement is significant, and there would be real risks for developers of conventional fossil technologies because of uncertainties over what the cost might be going forward

Third is the mechanism of auctioning carbon contracts. This is an intellectually interesting route that in many ways mimics the operation of a single electricity buyer but replacing the energy tender mechanism with a competitive carbon allocation process. This is worthy of development but at first glance is subject to distortion by the carbon agent, whose decisions on quantities and life of allowances would effectively be determining the qualifying technologies. It, rather than government, would be picking winners.

Fourth and not least it would be possible to create a carbon obligation. We already have a de facto banded carbon obligation on suppliers through the operation of the renewables obligation and the energy efficiency commitment.

Conceptually, this mechanism could be evolved through broadening the envelope of qualifying technologies and deepening the requirement on suppliers. Care would be needed to ring fence existing obligations (though we prefer an energy efficiency obligation to a commitment), but this route seems to us to have merit in that it would be relatively simple, transparent and would target costs on the beneficiaries (at least in terms of the higher security), which is the energy consumer. It would also create a direct route to market, thereby bypassing many of the problems that have beset renewables developers.

Other key issues

Of course there are many other issues that would need to be thoroughly analysed within the review, and the nuclear element should be seen as just that –

one piece, albeit an important one, of the jigsaw. In considering how to incentivise and underwrite new nuclear build, the government will need to be painstaking in ensuring that other programmes and support structures to low carbon technologies are not undermined and that slowly increasing confidence by developers is undiminished.

It also needs to think laterally about bottlenecks to the development of clean coal and carbon sequestration beyond 2010 can be tackled. And we continue to believe that the best way to displace carbon is not to use it, which means Behavioral aspects of energy use and increased awareness of using it more efficiently need to be an integral part of the longer term solution – not least as this will be the mechanism to mitigate the significant cost effect of these new Programmes to the consumer.

But addressing these matters thoroughly and with due transparency in six months is a tall order.

Embracing Energy Efficiency

December 14th, 2005

Greater energy efficiency makes the most of national energy resources, reduces the costly results of energy shortages, lessens our reliance on energy imports, and minimizes the impacts of pollution.

Consumers want relief. And interest groups and policymakers are joining forces to come up with new ideas to lower prices and encourage energy efficiency. What's going on? Here are some new approaches:

The American Gas Association and the Natural Resources Defence Council want to make sure gas companies win some incentives for promoting energy conservation. That's because utilities' earnings are tied to the volume of natural gas that customers use -- as is the case in most states -- even a small reduction in natural gas consumption can make a large cut into a utility's profitability. This presents a strong financial disincentive for natural gas utilities to promote energy efficiency.

Several natural gas utilities have worked with their state regulators to reform the way their rates are set up -- in essence, separating the utility's recovery of its fixed costs from the volume of natural gas delivered to customers. In some states, periodic adjustments called "true-ups" can move customers' rates up or down modestly to ensure that utilities recover their authorized fixed costs regardless of fluctuations in energy use.

This sets "the stage for unleashing the fastest, cleanest and least expensive responses to natural gas price increases," says Ralph Cavanagh, senior attorney for the defence council. "By changing the way that natural gas utility rates are structured, state regulators can remove unintended obstacles to energy-efficiency progress and thus help consumers save money on their energy bills while improving environmental quality."

Take Oregon: The Oregon Public Utilities Commission voted unanimously to renew its Conservation Tariff for four years. That tariff breaks the link between a company's earnings and the quantity of energy consumed -- all to reward suppliers for encouraging conservation. The new tariff covers all residential and commercial gas use by customers.

"Since coming on the books in 2002, the Conservation Tariff has proven its value to the public by promoting conservation," says Northwest Natural Gas Co.'s CEO Mark Dodson. "An independent study filed in March found that it was working well for customers, promoting conservation and stabilizing NW Natural's earnings..."

Meantime, the National Association of Regulatory Utility Commissioners and the Environmental Protection Agency are creating the Energy Efficiency and Renewable Energy Projects, all to cut demand and the resulting emissions. Such projects engage state utility commissions to work with the EPA to explore approaches for reducing consumer electric and gas bills through cost-effective energy efficiency, renewable energy, and clean distributed generation.

Proactive States

The five States involved are Arkansas, Connecticut, Hawaii, Minnesota, and New Mexico, plus the District of Columbia. The projects will serve as a vehicle for EPA and the states to investigate the proper role for energy efficiency, which, in a growing number of states nationwide, is delivering energy savings at a significantly lower cost than construction of new electricity supply.

"The true joy will come when we see real efficiency projects in the field, producing value for America's ratepayers and the world," says Chairman Michael Dworkin of the Vermont Public Service Board.

In Colorado, the governor says that a new energy law will save consumers and businesses more than \$500 million by 2020. The measure requires such things as illuminated exit signs and swimming pool pumps use less energy starting in 2008. Altogether, supporters say that peak electricity would be cut by 215 megawatts by 2020.

And, utilities are taking the initiative, too. Piedmont Natural Gas is encouraging customers to get started on energy conservation measures this winter to reduce the impact of rising wholesale natural gas prices on their heating bills.

It recommends setting the thermostat five degrees lower, and dropping the temperature even more when away from home for several hours. It also says that consumers ought to consider adding a high efficiency natural gas vent free unit heater to areas where they spend the most time as well as clean furnace filters at least four times a year.

"We suggest customers conduct an energy assessment and plan to take action now rather than wait until the first cold snap drives legions of homeowners to the local home improvement store," says June Moore, vice president of customer service for Piedmont Natural Gas. "Piedmont is committed to helping our customers manage their heating costs this winter, while actively partnering with them on efforts to address the root causes of the current price spike."

Portland Gas & Electric, meantime, sponsored a survey that found that facility managers spend less than five percent of their time on energy matters. Rather than fight that reality, it chose to provide an all-encompassing web-based service that helps such managers not just with lowering their power bills but also with improving their operations and maintenance procedures.

Brighter Future

In some jurisdictions across the country, customers can opt into real-time or time-of-use pricing programs, which is a step beyond energy conservation. Such programs allow users to adjust their usage, for example, from 3 p.m. to 7 p.m. during summer weekdays when the cost of electricity is highest.

If an industrial plant is flexible and can run key machinery at times when the electricity load overall is at its lowest ebb, then it could save a lot of money. Residential customers, on the other hand, would simply choose to run their dishwashers or washing machines in the late evening to avoid being hit with higher costs.

The federal government is also playing a role in facilitating and encouraging wise energy use, while simultaneously protecting the environment and conserving natural resources. Lower energy bills, of course, result in an increase in funds available for other critical purposes.

"Each and every individual action we take -- from turning off lights in unoccupied rooms to turning off computer monitors and computers, if possible -- adds up to a brighter future for us all," the Energy Department says.

To be sure, not everyone thinks government has a role to play when it comes to promoting energy efficiency. Sterling Burnett, with the National Centre for Policy Analysis in Dallas, says that if people want more energy-efficient household appliances or insulation systems, they can buy these products. "But I have problems with government forcing these choices through tax policy, subsidies or mandates."

But governments are getting involved. Many policymakers are persuaded that energy efficiency is an essential prong in the national debate about energy policy. Natural gas shortages and high prices necessitate this. As such, they are creating incentives to get individuals and business to save energy.

Energy Act Getting Started

December 12th, 2005

Federal energy regulators have taken the first steps toward implementing the 2005 Energy Policy Act. The Federal Energy Regulatory Commission has proposed transmission-pricing changes in an effort to promote needed investment.

Investors have long been weary of putting capital towards transmission infrastructure, largely because the returns don't justify the risks. Simply, it takes too long to go through the permitting process and the allowable rates of return don't reflect that. By establishing incentive-based rates and using its backstop permitting authority, the FERC says it will enhance reliability and cut the cost of delivering power because there would be less congestion.

Transmission investment has declined in real terms -- adjusted for inflation -- from 1975 to 1998. While there have been increases since 1998, FERC says that the level is still less than what was invested in 1975. Over the same time period, however, the demand for electricity has doubled. That's resulted in a significant decrease in transmission capacity, requiring new lines get built.

"Under-investment is a national problem," says Joe Kelliher, chairman of the FERC. "The commission proposes a national solution that encourages investment in all regions of the country."

The incentives apply to traditional utilities and to Transco's, or those that operate transmission lines but do not own any generation. Specifically, the commission would authorize a higher rate of return on these regulated assets as well as recovery of accumulated deferred income taxes. It would also allow companies to recover transmission-related construction costs and provide higher rates of return

for utilities that join regional transmission organizations that are independent and schedule all power deliveries for participating utilities.

Winning Permits

While everyone recognizes the need, new transmission is not getting built at the pace that is necessary. The difficulties in winning permits coupled with lack of capital flowing to such projects mean that less expensive generation may sit idle because of inadequate or congested transmission lines.

ISO New England, for example, says that about \$900 million is needed for upgrades to maintain reliability and efficiency. Southwest Connecticut in particular has one of the most severely constrained transmission systems in New England. At the same time, Arizona-based UniSource Energy Services, for example, has been trying to build a high-voltage line in the populated Tucson area but has been blocked by regulators and citizen activists.

More than 30 transmission projects have been planned or proposed by electric companies in the Northeast. Similarly, the Midwest ISO currently has several transmission projects in the works. But, according to FERC, they won't be enough to relieve the expected congestion.

"With transmission making up only about five percent of customer bills, even some traditional players don't think the potential rewards outweigh the risks involved in siting, maintaining, and operating the transmission system," says Robert Bellemare, CEO of UtiliPoint International. He points to the American Electric Power's 765-kilovolt line in West Virginia and Virginia, which might end up being a 15-year process.

Despite the potential obstacles, four governors of Western states have given their support to the building of 1,300 miles of power lines at a cost of \$2 billion. If the projects are constructed and begin delivering electricity by 2011, lines would stretch from Wyoming and into Utah, Nevada and Southern California. The governors say that the new lines are essential: They note that the demand for power has risen by 60 percent in the last 20 years but that the region's transmission system has only grown by 20 percent.

Some states, however, may struggle to provide enough power in 2006. In California, if reserve levels ever fall below the 7 percent, then the energy commission there says that it might ask for voluntary reductions or would suggest rolling blackouts.

Open and Inclusive

Needless-to-say, the 2005 energy law aims to push things along. The Department of Energy now has the authority to identify "national interest electric corridors" while the FERC can site the projects that fail to win state approval, essentially giving the permit holder the right of eminent domain. Meantime, the law not only would include the North American Electric Reliability Council in the development of standards but also allow it to enforce them as well -- all under the authority of a so-called Electric Reliability Organization. Such standards have been optional to this point.

The idea is that the permitting process would take no more than one year. And, if the process gets stymied in the court system, the interested parties could petition the president of the United States for approval. At least that's the theory. But, as FERC well knows, it has similar rights when it comes to permitting natural gas pipelines. And, oftentimes, the process is still mired in court fights and regulatory battles that are time consuming. In any event, FERC emphasizes that the permitting process will always remain open and inclusive.

The ultimate goal is to build a transmission infrastructure in line with the digital economy. Any intrusion, for example, could be isolated while the rest of the grid kept functioning. To get there, though, it will be costly.

"An idealistic end point would be \$100 billion investment over 10 years," says Wade Malcolm, with Palo Alto-based EPRI, a utility research group.

And that's where incentive-based rates come into play. Through the FERC, Congress wants to implement the incentives to expand the transmission infrastructure and thereby increase reliability. Policy makers also want to provide a predictable regulatory environment and ensure rates remain stable. The proposal is new and will certainly invite some criticism. But, it's a productive start when it comes to addressing the country's energy concerns.

FERC Faces Challenge

December 30th, 2005

COMMISSIONERS AND STAFF at the Federal Energy Regulatory Commission have already stuffed their 2006 desk calendars with meetings as the agency faces one of its heaviest -- and for the electric utility industry, most significant -- workloads since the FERC's predecessor agency, the Federal Power Agency, was created in 1930.

FERC Chairman Joe Kelliher enters his first full calendar year as chairman having to make do with just two commissioners as colleagues -- and two vacancies on the commission. They face an agenda as deep as a mine shaft, clogged with active dockets initiated in response to last summer's Energy Policy Act and by Kelliher's own reform agenda, highlighted by his signature initiative: revision of the Open Access Transmission Tariff (OATT) designed as part of Order 888.

Kelliher faces the New Year with an unenviable, and in many ways, conflicting task. Natural gas prices were running amok in some parts of the country, sending electric rates higher even before the supply disruptions from Katrina and Rita. With state public utility commissions jumping in to cap electric prices, FERC must show that it, too, is acting to defuse exploding electricity rates. On the other hand, the commission has to offer generators and transmission providers effective rate incentives to add capacity in the long term, which means offering more attractive rates.

"That is a fair question," says Tom Welch, vice president of external affairs for regional transmission organization PJM Interconnection, responding to a question about whether Kelliher and FERC face an impossible dilemma. PJM is the RTO operating in 13 eastern states and the District of Columbia. "At what point do you know if what you build is enough, too much or too little?" asks Welch.

PJM raised the stakes for Kelliher when it submitted a request to FERC in August, asking for access to a reliability-pricing model, which a FERC official says, "is already generating controversy."

In addition to the PJM request, FERC has to decide whether to modify its previous approval of ISO New England's request to use Locational Installed Capacity Plan (LICAP) pricing as a means of encouraging Dominion, PSEG, FPL and other power providers to increase generation capacity. Massachusetts and Connecticut state officials oppose LICAP, arguing it will jack up electric costs by \$13 billion in the region over the next five years while failing to guarantee that power plants will be built. Power companies say they can't build new facilities until new transmission lines are built.

Nearly everyone agrees, however, that Kelliher's commitment to make changes in Order 888 and its OATT will be controversial. Order 888, which became final in 1998, allows a market-based rate if a wholesaler does not have market power. But there are all kinds of latitude for determining those rates. Kelliher says power supplier's use 13 to 17 different methods for calculating Available Transfer Capability (ATC) -- a key factor in the rate equation. "That makes it hard for the commission to identify violations," Kelliher notes. "There needs to be more consistency there."

Significant changes in the OATT are a threat to vertically integrated utilities in the South and West, most prominently, but not exclusively, Entergy, Southern and Duke. Larry Bruneel, vice president of federal affairs for the International Transmission Company, which serves customers in 13 southeast Michigan counties, says reform of the OATT will be Kelliher's "keystone" initiative. Bruneel contrasts Kelliher's approach to remedying discriminatory rates with that of former Chairman Pat Wood, Jr., who tried to impose a Standard Market Design (SMD), which he was forced to abandon -- in part because of political opposition by Entergy, Southern, Duke and others, who brought pressure to bear in Congress.

Bruneel thinks Kelliher will be better able to bring off OATT reform not only because it is a more conservative, legal, narrow approach than SMD, but also because Kelliher is better suited to artfully deflect political pressure in a way that Wood could not. His theory is based on his background as a House staffer and close ties to House Energy and Commerce Chairman Rep. Joe Barton (R-Texas). "Anything Kelliher does will have very solid legal underpinnings," Bruneel adds.

Kelliher's go-slow, legalistic approach will also be felt in FERC's implementation of its new merger review authority granted by the new energy act. Kelliher implied at a press briefing in September that he wished FERC had been able to take a look at Duke Energy's divestiture of its entire 5,000 megawatts of merchant capacity in the Southeast to KGen Partners in 2004. FERC approval was not required then. But the new energy act gives FERC authority to examine sales of generation assets for the first time.

As he moves forward on these issues, Kelliher will be working with Democrat Suedeen Kelly and Republican Nora Mead Brownell with whom Kelliher has very good relations. He says he "has no idea" when the two vacant seats on the commission will be filled. The Bush administration has yet to announce any nominations. "But in the meantime, we will be fully functional," Kelliher states. "There are very few matters we can't dispose of."

In fact, in the past five years, the FERC has had a full complement of five commissioners for only three months. Complementing those collegial relations is Kelliher's command of a like-minded top staff, which he already has begun to mould. His first appointment to a "political position" -- i.e. one that commissioners can fill with whomever they want (no Senate confirmation required) -- was John Moot to be general counsel, a pivotal position. Bruneel describes Moot, who had worked in the Washington office of law firm Skadden, Arps, Slate, Meagher & Flom LLP since 1992, as "an incredibly good lawyer."

Industry observers almost unanimously agree Kelliher will lead his staff and commissioners down a careful, thoughtful path in 2006. "There will be much more solid legal underpinnings to anything the commission does," Bruneel maintains.

RELIABILITY INITIATIVE

- FERC's establishment of an Electric Reliability Organization (ERO) means utility companies in the distribution chain will have to tune up their operations and maintenance procedures or pay a stiff price for failing to do so, both financially and in terms of public relations.
- "If we end up with an ERO as strong as INPO, we'll all be better off," said Kelliher at a September press briefing.
- The Institute of Nuclear Power Operations (INPO) was formed after the 1979 Three Mile Island accident to promote excellence in nuclear power plant operations. Terry Young, a spokesman for INPO, says the group inspects nuclear plants every two years, and submits a report to the utility. Those reports are never made public. INPO has never taken any enforcement action against a utility for violation of standards.
- The Energy Policy Act, which mandated that FERC oversee an ERO that establishes mandatory reliability standards, also gives the ERO power to levy enforcement actions and penalties -- subject to FERC approval and allows FERC to do the same on its own.
- Brian Lee, the FERC spokesman, says Kelliher used the INPO example in the sense that the nuclear industry was forced by pressure from the Nuclear Regulatory Commission to set up a self-policing organization. Lee adds that a better parallel, at least in terms of an ERO's policing of the electric utility industry, is the relationship between the Securities and Exchange Commission and the New York Stock Exchange, where the SEC fines companies who violate NYSE rules.
- But enforcement of mandatory reliability standards - if in fact that happens - remains a ways off. FERC must designate the rules for ERO operation by Feb. 15. It won't be able to select an ERO until sometime after that date. It is almost a foregone conclusion that FERC will designate the North American Electric Reliability Council (NERC) as the ERO. "It is our expectation that we will become the ERO," says Joanne Callahan, manager, editorial services for NERC.
- The electric industry established NERC in the aftermath of the 1965 blackout in the northeast United States. Since its inception, NERC has developed Operating Policies and Planning Standards that provide voluntary guidelines for operating and planning the North American bulk-power system. In April 2005, NERC adopted "Version 0" reliability standards. The new ERO will have to develop mandatory standards, which may or may not mimic Version 0 and must then be approved by FERC.

- Stephen A. Stolze, managing director for Enterprise Management Solutions, a Black & Veatch company, says, "At the start, FERC will try to get an idea of who is going to play and who is not going to play. But it won't come out with axes swinging."
- "Because FERC will have the power to issue fines, I think you'll see more transmission investment," Stolze explains. "For example, there could be more installation of new technologies such as superconductors, and then rate activity around recouping those costs."
- He notes that the ERO will operate differently than NERC has. Whereas NERC and its regional affiliates have depended heavily on utility industry technical talent, who are assigned by their companies to develop and vet proposed standards, the ERO will have a paid technical staff and will also seek input on standards from all market participants. Moreover, end-users will fund the ERO, and will want a voice in its operation - meaning manufacturing industries will for the first time have a say in how their power suppliers operate.

Rising prices put the squeeze on SMEs

December 15th, 2005

Britain's small-to-medium businesses are being hit hard by spiralling energy prices. As prices rise and the cost of metering technology falls, more and more SMEs are waking up to the possibilities of more effective energy management.

Increasing energy costs are damaging UK businesses across the board. Over the past 12 months, UK energy prices have soared by 15 per cent, and they are expected to continue rising. For SMEs operating within tight margins and with little or no flexibility in their budgets, changes on this scale have a huge impact.

There's no denying that the heat is on as far as energy costs are concerned, but all is not doom and gloom. Even in the present high price climate, businesses can make significant savings on their energy bills – and without having to make huge investments. The government-funded, independent body, The Carbon Trust, calculates that businesses could realistically save up to 20 per cent on their energy bills.

Cutting usage is one quick and easy way to boost the bottom line. Did you know that you could shave three per cent from your energy bill, just by switching off the lights and computers in your office at the end of each day?

But to enjoy real energy-saving advantages, you need to take a more strategic approach. Traditionally it has been the larger players such as Boots and BT who have taken energy management most seriously. For SMEs, energy management

was seen as a low-priority, long-term issue. They were too busy to find the time, money or motivation to look into it.

How times have changed! With energy management under the spotlight and on the front pages as never before, it is beginning to creep up the agenda of even the smallest company.

In their search to find more effective ways of managing their energy costs, energy managers from all kinds of SME have been asking IMServ for advice, including a manufacturing company in Birmingham, a property developer in Somerset, a fruit drinks producer in Yorkshire and an advertising agency in London.

In order to help them even further, IMServ is tailoring its approach to cater precisely to the needs of SME energy managers and offer solutions that will directly address their problems.

IMServ's online energy data management tool, Energy DataVision (EDV), is a case in point. At one time, such advanced technology would have been beyond the pocket of all but the largest multinationals. Today, technology like EDV is affordable to everyone.

By providing access to accurate, reliable data, EDV enables managers to improve energy efficiency and act immediately to put right any anomalies.

SMEs can also benefit from so-called 'smart meter' technology. Large industrial and commercial users have enjoyed the benefits of smarter meters for years, helping them save energy and cut costs. Now, as the cost of metering technology falls, SMEs can have access to remote metering, so they can calculate costs, check at a glance how much they are spending – and wave goodbye to the inconveniences of manual meter reading.

SMEs who manage their energy needs efficiently and exploit new metering and management technologies to the full, will be in a good position to gain real savings, and steal a march on their less well prepared competitors.

Strong Fuel Prices Globally

"Strong fuel and CO2 prices" to drive 2006 power market Analysts at UBS believe that high energy prices are with us for some time to come: the challenge they see for power generators is to make sure they increase the revenues they realise from them.

There seems little prospect of power prices moving out of their current trading range throughout north west Europe, including the UK and Scandinavia, according to city analysts UBS in its *“European Utilities - 2006 outlook”*. However, it notes risk for the sector, which it holds an “underweight” rating.

UBS’s is a wide-ranging analysis from an investment strategy perspective. We summarise below key points from it where they consider UK market and policy issues.

British wholesale power prices, both spot and forward for 2006 “seem to be a fair reflection of the anticipated cost of fossil fuel over the period, as well as the cost of carbon” in UBS opinion. It believes that a spot spark-spread over the past six months of £13.7/MWh show that the wholesale market seems to be functioning well. Generators may gain further from passing on higher prices to their customers – both wholesale and retail – when established longer-term arrangements expire. “It takes, in our view, two to three years for companies to be able to reflect in their realised prices the full extent of a rise in power prices” comments UBS. The chart opposite shows UBS’ views of possible power prices over the next few years compared with its assessments of rates that would support commercial new entry.

Carbon prices are likely to remain strong. UBS core view is that they should “stabilise at around €25/EUA to the end of the first ETS period (2005-07)”. But they say, “there is a risk of the carbon price rising strongly in 2007 (and potentially already in 2006), as much as a risk that the cost of carbon will converge to a significantly lower level to the end of 2007. UBS bases its view on long-term carbon prices being determined by the cost of switching from coal to gas, and thus relative oil and coal prices. With a long-term crude price assumption of \$41/ barrel and a coal cost assumption of \$65 per tonne, it estimates this long-term equilibrium price to be €27-28 per tonne. UBS also highlights the possibility of a windfall tax on generators’ perceived excess profits from passing on marginal costs of mainly free carbon allowances.

In regulation, 2006 is likely to be dominated by gas and electricity network price control reviews where key decisions will be on allowed returns and capital expenditure programmes? UBS comments that there will be “an opportunity to judge how regulators will respond to the falling bond yield environment, which could drive other regulated stocks such as the high-priced UK water sector.” The review of gas distribution in 2006 will be important as it may see Ofgem establishing “some methodological principles of importance” as it is the first to be undertaken since the DN sales.

UBS investment position is to be “underweight” in the electricity sector as a whole but to be “overweight” in generation. To us this suggests that high global energy prices are driving company performance at the moment and that changes

here could have profound implications for the major utility companies. But don't expect them in 2006, according to this analysis.

Calpine May Tumble

December 9th, 2005

Calpine Corp. once towered. Today it is teetering. Bankruptcy may be inevitable. The independent power operator just canned its top two executives, leading many to say that the company is en route to restructuring, or declaring bankruptcy. CEO Pete Cartwright left, along with CFO Bob Kelly. Acting CEO Kenneth Derr has said that bankruptcy remains a viable option.

Calpine hung on a lot longer than some of its contemporaries. Restructuring of the electricity industry in the 1990s along with surging demand necessitated the construction of more power plants and particularly ones built to run on natural gas. But, the industry overbuilt and power prices subsequently fell and squeezed the merchant energy sector. Calpine saw its stock hit a record high of \$57 a share in April 2001. This week at the height of bankruptcy rumours, however, the company's stock has been delisted from the New York Stock Exchange.

Because forecasts made in the 1990s as to the future demand for power did not hold true, many lenders overvalued the energy assets used as collateral for the loans they made. That allowed unregulated independent power producers to borrow aggressively. The total merchant debt is \$65 billion, due by 2012. While money is cheap today, the credit markets now give all their risks more scrutiny. There is little capital recovery because the spark spreads -- the difference between the prices of natural gas as a feedstock and the market price for electricity -- is so low.

To reduce its \$18 billion debt, Calpine sold some of its 92 power plants as well as some natural gas reserves. While it sought to shed \$3 billion, it has been successful at cutting \$1 billion. Needless-to-say, the company needs to cut more -- and the firing of Cartwright and Kelly will only accelerate that. In the meantime, though, Fitch Ratings lowered its ratings on the company, noting that a Delaware Court said Calpine violated a loan covenant and that it needs to give \$313 million of proceeds from an asset sale to bondholders.

The departure of the CEO and CFO is a precursor of things to come, Fitch says. Calpine "will pursue more aggressive restructuring measures in the near-term. Fitch cut its rating on Calpine's senior unsecured debt one notch to "CC," 10 levels below investment grade and an extremely speculative ranking, from "CCC-minus." The outlook is negative.

Many thought Calpine above the fray. Such merchants as Mirant and NRG that sell power on the open market struggled. Mirant is still in bankruptcy while NRG has emerged from Chapter 11. But Calpine has held on. It has even continued building power plants. Consider its Metcalf and Pastoria plants: They cost more than \$1 billion but have yet to win the long-term contracts to cover their costs. The good news is that demand nationally for power is picking up.

Room for Optimism

The pressure on energy companies generally has been and remains intense: close to 200 were put on "credit watch negative" in 2002 alone. According to Standard & Poor's, downgrades in the merchant generation and trading sectors have slowed down as of year-end 2004 but at the same time, they have outpaced upgrades. The unregulated merchant business model has not changed much and no blueprint has yet to emerge to make those power sales and trades any less risky.

At the same time, recent projects undertaken by merchants remain exposed. Prior to construction, such companies received commitments for only 40-65 percent of the gas-fired power they were to generate. The idea was that the balance would be sold on the spot market for presumably more money than term deals -- a model that fell apart as natural gas prices soared and as wholesale electricity prices plummeted because of soft demand and too much generation supply. Basically, the spark spread is so thin that some companies have trouble covering their fixed costs.

There is room for optimism for the merchant sector generally and for Calpine. Fitch Ratings has a more optimistic take on the utility industry. After the "credit inferno" in 2002, it says "broad signs" exist that both the regulated and unregulated sectors are improving. In its 2005 projections, the credit agency says the near-term outlook for investor-owned electric utilities and affiliated generating companies are "stable" in 2005 while the outlook for diversified energy merchants "has shifted to positive from stable."

The better outlook for the merchant sectors furthermore "reflects successful re-financings in 2004 that enabled most of these companies to extend debt maturities and eliminate near-term liquidity concerns," the Fitch report says. It credits low interest rates and accessible capital with improving liquidity and balance sheets. Such market dynamics were particularly helpful to the merchant utilities, which should see "continued opportunities."

Clearly, Calpine owns valuable assets, accounting for nearly 40 percent of all megawatts that will eventually be produced just in California where it is based, say regulators there.

And its management is intent on improving productivity and cutting expenses in an effort to lift its junk bond status. Like all merchants, it is staggering debt maturities, negotiating bank loan covenants and maintaining bank lines of credit in excess of anticipated needs.

And one need only look at NRG: It has restructured and produced robust returns. NRG has an advantage, however, because 75 percent of its generation fleet is fired by coal -- a far cheaper alternative than natural gas right now.

While the merchant sector is somewhat up, Calpine is down. That could change. Money is cheap, although borrowing conditions are stringent. The credit agencies say the overall goal is to get to a 50-50 debt-to-equity ratio, if companies want to achieve investment grade ratings. The companies able to do so will live on. Those that don't may sell out to those that are financially stronger.