

Executive Summary 2009 Results of New England Consumer Energy Survey

The results of NEEA's January 2009 telephone survey conducted by Opinion Dynamics suggest that — despite the pre-occupation with “pocket-book” concerns — support for a range of energy infrastructure proposals remains strong in New England. Moreover, it appears that when logically linked to other pressing societal concerns, support can be further strengthened. Major conclusions are as follows:

- **Economy dominates consumer concerns** – the financial crisis, economic recession and loss of jobs trump all other concerns. Consumers also expressed concern about energy price volatility. Of particular concern is the potential for federal and state gasoline tax increases (especially if how the revenue will be spent is unspecified) as well as the higher prices the region's businesses pay for electricity in comparison to their competitors in other regions.
- **Concerns about climate change remain significant** – the percentage of New Englanders at least somewhat concerned about climate change remains high (87%). A super majority of 75% of consumers are willing to pay at least \$1 per month more on their electricity bill to reduce greenhouse gas emissions – a 7 percentage point increase from last year. And, a majority said they are supportive of paying more for gasoline (50 cents/gallon tax) if the funds are spent on concrete solutions (the level of support changes based on the solution).
- **Market-based approaches over government regulation/mandates are solidly favored** – to limit greenhouse gas emissions and to increase energy efficiency. There seems to be no inclination to rollback electricity industry restructuring, as 78% at least somewhat favor customer choice and competition.
- **Significant opportunities exist for additional energy efficiency** – Seventy-one percent have not had an energy audit conducted in their home and the vast majority said they are willing to undertake measures to reduce energy consumption such as: car pool or take public transportation, unplug appliances when not in use, contact energy delivery company for an energy audit, and replace light bulbs with compact fluorescents.
- **Solid support is evident for energy infrastructure development** – Wind farms are favored by a significant majority and construction of LNG terminals also has substantial support. A smaller majority support transmission line construction, and nuclear plant license renewal. However, support for constructing new nuclear plants and clean coal generating facilities remains mixed.

Integrated Assessment of 2009 Survey Results

Economy dominates consumer concerns

This comes as no surprise. Q1 shows that the economic crisis trumps all other concerns handily. Interestingly, the second tier concerns (prices of energy, healthcare costs, taxes and the housing market) all have an economic bent as well.

Concerns about the economy apparently influenced the responses to a number of questions:

- Q2. The biggest energy-related concern was the potential for federal/state gasoline tax increases of 25 to 50 cents per gallon (although this concern abated when the use of the tax revenue is specified as discussed below). Also, the desire for more renewable energy is notably high on this question.
- Q4. 84% expressed concern about the rising and falling of energy prices in family /business budgets (at a time when energy prices – particularly gasoline – have significantly declined). There is clearly no confidence that low gas prices will continue.
- Q7. Two-thirds were concerned that the region's businesses are at a competitive disadvantage because they pay substantially more for electricity than the national average (this is higher than last year – albeit the premium paid by the region's businesses is substantially higher).

Concerns about climate change are significant, steady and largely not influenced by economy – clear majority support gasoline tax, especially if revenue is targeted/linked to climate change

An overwhelming 87% of respondents to Q14 are at least somewhat concerned about climate change – exactly the same percentage as last year when the economy was better and consumer outlook higher. Interestingly, it appears given the response to Q14 and the others discussed below, that climate change mitigations may gain support if they are integrated as part of energy, economic, and social policy and not proffered on a standalone basis. This may be particularly true if the connection is made between climate change issues and energy security.

- Q5 was similar to Q14 – but here the concern for climate change dropped to 65%. This difference (22 percentage points) is likely because Q14 was an absolute question, while Q5 related climate change to energy which has other issues of concern (like price, reliability etc). Still the concern with climate change is compelling.
- It's also interesting that in Q16, the percentage of people willing to pay more on their electric bill in order to limit the effects of global warming increased. Specifically, those willing to pay up to \$1 more a month increased from 19% to 26% (this increase is mostly attributable to those who previously didn't want to pay more). The percentages of those willing to pay more than \$1 month remained the same.
- Notwithstanding any concerns about an increase in the federal/state gasoline tax (see above) there is a strong willingness to pay more if the purpose is to fight climate change. The percentages in response to Q15 roughly parallel those for electricity bills (see above) in that 31% will pay 10 cents more per gallon with 46% willing to pay a substantial 50 cents more per gallon (49% were willing in Q22 which referred to alternative energy and not directly to climate change).
- The responses to Qs 23, 24 and 25 demonstrate that consumers are measurably more supportive of a 50 cent per gallon gasoline tax if the funds will be spent on social programs (67%), alternative energy R&D (64%) and tax subsidies for alternative energy (53%). This suggests that New Englanders are willing to sacrifice if they perceive that there will be follow-through solutions on important concerns.
- Not surprisingly, there was little support (Q26) for a 50 cent per gallon gasoline tax if it goes toward corn-based ethanol and causes higher food prices.

Market-based approaches are solidly more favorable than government regulation/mandates and programs

Questions 27 and 28 showed a slight increase in support for consumer choice, market competition and for the restructured electricity industry. 78% at least somewhat favor choice and competition. More important, market forces are more desirable than government agency [regulations] by a plurality of 47% to 36% --- which is about the same as last year. There seems to be no inclination to rollback restructuring as some have proposed. As is the case with many dramatic public policy changes, once they are

instituted for a few years, they quickly become accepted “tradition”—no matter how “radical” they may have seemed at the outset.

- A clear majority (57%) in Q13 indicate that government “appliance standards” for energy efficiency are agreeable.
- Q36 asked a similar question — but now offered three choices: government mandated programs; market forces or; government standards. In this instance, government programs were supported by only 15% of the respondents. The other two choices were even at about 34%, but when added together come close to the majority response to Q13. This seems to suggest that consumers favor government efficiency standards (which have been in place for several decades) but want them implemented by the marketplace so that they have choice and competition.

Large and small wind farms are desired by a significant majority

- About two-thirds remain concerned that the Cape Wind project has been blocked by a “not in my back yard” attitude (Q10).
- When objectively offered the advantages and disadvantages of large wind farms, (Q 33) support for wind energy strengthened in comparison to last year. Overall favorability stayed at 84%, but the “strongly favor” portion increased by 10 percentage points—and now stands at more than six in ten residents (61%). The rising tide of support for renewable resources seems to be carrying wind power in New England to even higher levels of support.
- Q40 shows that there is essentially no difference between the desirability of small land-based versus large off-shore wind farms. The public simply seems to like wind energy in general.
- 66% of the public would support a large off-shore wind farm in comparison to building a transmission line to gain access to Canadian hydro electricity (Q38). It’s reasonable to assume that this compelling support for the wind farms resulted from the need to construct a transmission line – but that’s clearly not the case. When objectively offered the advantages and disadvantages of above-ground electricity transmission lines to bring in electricity from several sources including “hydro electric and wind facilities in Canada” (Q35), support substantially increased to 60% for their construction. (see below)

- The size of large off-shore wind projects or the number needed off the region's coastline to comply with RGGI standards are apparently not of concern to the public.

Clear majority supports transmission line construction while new nuclear and clean coal generating facilities still have mixed support

Two questions were posed about transmission. The first (Q8) showed that a slight majority of 54% is at least concerned that it is difficult to upgrade or expand transmission infrastructure for delivery of electricity from renewable generation sources. The public's concern might indeed be higher if the generating source is "wind farms" and not the more generic "renewable resources".

- As discussed above, when objectively offered the advantages and disadvantages of above-ground electricity transmission lines to bring in electricity from several sources including "wind facilities in Canada as well as from wind farms located in the mid west" (Q35), support substantially increased to 60% for their construction from last year's 50%. The reference to wind facilities and wind farms was not asked in last year's survey – thus, it's fair to attribute the substantially increased support to the access that transmission lines would bring to electricity generated from wind. This is a recurring theme in this research. If tough public policy choices are framed properly (climate change linked to energy security; transmission lines linked to hydro or wind), support can be enhanced.
- Support for the construction of new nuclear energy plants in the region remains about evenly split. When objectively offered the advantages and disadvantages of this generating technology in Q30, the split was 48% in favor and 47% not in favor — about the same as last year and the year before.
- When posed a statement in Q12 about plans to construct 18 new nuclear plants in other parts of the country and that more are needed to be built in New England, 43% favored and 18% were basically neutral — indicating an opportunity for support to be built for this technology. Again, linking nuclear to zero global warming emissions might enhance this support level even further.
- The public continues to favor the relicensing of nuclear energy plants by comfortable majority of 55% (same for last two years as well). Q31

- Notwithstanding specific concerns, in a trade-off scenario, support for electricity from nuclear energy plants holds a six point plurality over a clean coal plant (Qs37 and 39).
- When objectively offered the advantages and disadvantages of clean coal technology, support for it was evenly split (Q34) as it has been for the last two years.
- Interestingly – given that about 50% of the public supports the construction of a new clean coal or nuclear energy plant (see above discussion) — a similar percentage supports off-shore oil drilling (Q11). The implication seems to be that the public is split on the need to pursue more conventional but substantial energy supplies.

Construction of new LNG terminals continues to have a substantial majority of support

- When objectively offered the advantages and disadvantages of LNG terminal technology (Q32), almost a two-thirds majority (65%) supported building new facilities.
- This level of support is consistent with the response to a similar question asked in 2007 — but significantly higher than one posed in 2008. It's possible that this fluctuation is driven by weather at the time of the survey. The question cites the contribution of LNG to home heating on a cold winter day – this year's survey was largely fielded during a significant cold snap. The weakest support for LNG occurred during April 2008 when weather patterns were more moderate.

Significant opportunities exist for increased efficiency along with a strong willingness by consumers to take additional, but reasonable steps

- 55% are willing to car pool/take public transportation at least one day per week (Q17) which is significantly higher than last year's results. It should be noted, however, that this option garners the lowest level of willingness among 5 activities tested.
- A super majority of 71% expressed a willingness (Q18) to physically unplug electronic devices to reduce phantom load. It's not clear if the inconvenience of

this action was fully appreciated in the response (memory loss by cable boxes, no quick restart for computers etc). On the other hand, this response implies that consumers are ready for smart systems that can monitor and control phantom loads. In the response to Q9, however, only a slight majority expressed concern that the region has been slow to install smart meters.

- 67% of consumers would be willing to participate in a type of “awards points” program to reduce electricity. Given that the public is not favorably inclined to mandated government efficiency programs (Q 28 as discussed earlier), this type of consumer choice-reward approach might be a consideration in the future.
- A super majority of 81% would be willing to install two compact fluorescent bulbs in their homes (Q20). The question implied that the bulbs would be free. The potential benefit-to-cost ratio of this willingness is very significant. For instance, if all 4.8 million households (81% of the present inventory) replace 2 bulbs that operate just 2 hours per day with compact fluorescent bulbs, then about 40MW of demand would be eliminated at a cost of about \$38M or roughly \$900 per kW. By comparison, the region’s government mandated utility efficiency programs achieve a cost –benefit ratio of about \$2240 per kW (based on annual costs of \$240 million and savings of about 750 million kWh annually).
- It’s also clear that there is a significant potential for home energy audits. In Q19, about 70% of consumers expressed a willingness to call their energy delivery company for an audit. In Q47, a similar percentage of consumers stated that their home has never had an efficiency audit.

The telephone survey was conducted for the New England Energy Alliance (NEEA) by Opinion Dynamics Corporation of Waltham, MA. Interviewing was completed between January 15 – 19, of 600 registered voters (consumers) proportionately distributed throughout New England. The margin of error is +/- 4%.

The question-by-question survey results are graphically available on NEEA’s website (www.newenglandenergyalliance.org).

The New England Energy Alliance is a coalition of energy providers and trade organizations concerned about future energy supplies.