

## **Municipal aggregation and retail competition in the Ohio energy sector**

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### **Abstract**

Ohio allows communities to vote to aggregate the loads of individual consumers (unless they opt out) in order to seek a competitive energy supplier. Over 200 communities have voted to do this for electricity. By 2004 residential switching reached 69% in Cleveland territory (95% from municipal aggregation) but by 2006 had fallen to 8%. Savings are now small, but customer acquisition costs are low and the cost to consumers is negligible. Aggregation and retail competition have been thwarted by Rate Stabilization Plans holding incumbent utility prices below cost since 2006. In the Ohio gas sector, rate regulation has not discouraged aggregation and competition, but market prices falling below municipally negotiated rates can be politically embarrassing. How municipal aggregation would fare against individual choice in a market conducive to retail competition is an open question, but the policy deserves consideration elsewhere.

Key Words: Municipal aggregation, retail competition, electricity, gas, Ohio, regulation

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## 1. Introduction

Municipal aggregation has emerged in a few US states as a response to the opening of retail competition in the electricity and gas sectors. It enables a municipal government to aggregate the load of the individual consumers within that municipality (unless they opt out) in order to negotiate better electricity and gas rates from competing suppliers. During its brief period of existence in parts of Ohio, it has been characterised by an almost meteoric rise followed by some serious setbacks. There are different views as to what were the influencing factors and whether this outcome was inevitable.

In 1999 Ohio decided to deregulate its electricity market, effective 2001. The utilities were required to file Electric Transition Plans covering the five years 2001 – 2005 to facilitate this deregulation. Within three months of market opening, over 150,000 residential customers had switched supplier. The Northeast Ohio Public Energy Council (NOPEC) was formed in 2000 to represent nearly 400,000 customers from 94 communities, “the largest community buying group of its kind in the nation”. In February 2001 it negotiated a five-year contract with Green Mountain Energy Co. to provide lower prices and cleaner energy.

Residential switching did not occur in some territories but was active in others. By December 2002 it had reached 60 percent in Cleveland area and 41 per cent in Toledo. In total over 750,000 residential customers were with competitive service providers. In May 2003 the Public Utilities Commission of Ohio (PUCO) declared that “of the twenty four states in the US that have adopted electric choice, Ohio’s experience has been among the best”. Moreover, “aggregation is the success story in Ohio, accounting for nearly 93 per cent of residential switching in Ohio”.<sup>1</sup>

For a few years, retail competition and municipal aggregation continued to flourish. By December 2004 residential switching was 69 per cent in Cleveland and 48 per cent in Toledo, a total of over 900,000 customers. Nearly 170 cities, counties and townships had formed government aggregations to purchase discounted power on behalf of their citizens. Such programs accounted for nearly 95 per cent of residential switches. The Ohio Consumers’ Counsel (OCC) declared that “Ohio has the most successful aggregation program in the nation and serves as the model for other states.”<sup>2</sup>

Green Mountain Energy Co renewed its contract with NOPEC in March 2005, for a further three years through 2008. In August 2005 the PUCO declared that Ohio was now “second only to Texas when it comes to the level of residential customer participation”.<sup>3</sup>

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<sup>1</sup> *The Ohio Retail Electric Choice Programs, Report of Market Activity, 2001-2002*, Public Utilities Commission of Ohio (PUCO), May 2003, covering statement, page 20 and Appendix B. The phrase “Electric aggregation – Ohio’s success story” is echoed on the website of the Ohio Consumers’ Counsel [www.pickocc.org](http://www.pickocc.org), which affirms that “Ohio’s aggregation record is impressive”.

<sup>2</sup> *Biennial Report of the Office of the Ohio Consumers’ Counsel to the Ohio General Assembly on the State of Electric Restructuring*, Janine L Migden-Ostrander, Consumers’ Counsel, December 30, 2004, p. 4.

<sup>3</sup> *The Ohio Retail Electric Choice Programs, Report of Market Activity, January 2003 – July 2005*, PUCO, August 2005, covering statement and Appendices B and C.

Meanwhile, as the Electric Transition Plans came to an end, new Rate Stabilization Plans were put in place for the major utilities, covering the three years 2006 – 2008, to provide a more gradual transition to market-based rates. NOPEC warned that these could be “fatal to NOPEC and other governmental aggregators and suppliers”, and their collapse would be “a disaster of epic proportions for the PUCO to deal with”.<sup>4</sup>

Suddenly, in October 2005 Green Mountain Energy Co pulled out of the new contract with NOPEC. This was “an unanticipated crisis that threatened the continued existence of our signature discounted electricity program”. Eventually, NOPEC was able to reach a new agreement with FirstEnergy, the local distribution utility, which enabled the chairman to claim that “NOPEC has emerged stronger than ever”.<sup>5</sup> In fact, however, NOPEC customers were returned to the standard service offer of the regulated utility, albeit with a small generation discount as a quid pro quo for supporting the utility’s Rate Stabilization Plan. There is a widespread view that the future of municipal aggregation will depend critically on the evolution of electricity regulation after the Rate Stabilization Plans terminate in December 2008.

The same applies to retail competition generally, since “electricity shopping in Ohio has been dramatically reduced over recent years, and several suppliers have left the state”.<sup>6</sup> By December 2006, including with the reclassification following the change of NOPEC supplier, residential switching had fallen to 8 per cent in Cleveland and 11 per cent in Toledo. Only 266,000 residential customers, some 6 per cent of the Ohio total, remained with competing suppliers.<sup>7</sup> The OCC website says that “the competitive market has struggled to develop” in Ohio. The PUCO website says bleakly that “No Competitive Retail Electricity Suppliers are currently enrolling customers in Ohio.”

In April 2007 the Consumers’ Counsel argued that “Ohio has yet to embark on a true competitive path. ... Due to a combination of factors, aggregation – which was the jewel of deregulation – has also dissipated.”<sup>8</sup> On 1 May 2007, Ohio Governor Strickland acknowledged that “electricity deregulation has had a more than checkered past and maintains an uncertain future. Competitive markets simply have not developed.” This speech was reported under the headline “Ohio governor says deregulation of electric industry not working”.<sup>9</sup>

What does all this mean for municipal aggregation, both in Ohio and elsewhere, and more generally for retail competition? How does municipal aggregation work and what lessons should be drawn? Is municipal aggregation an efficient competitive mechanism, more

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<sup>4</sup> NOPEC July 2004, cited in Colton (2006) pp. 6,7.

<sup>5</sup> NOPEC *Year-end Report 2005*.

<sup>6</sup> Ohio Regulatory Update, Strategic Energy at [http://www.strategicenergy.com/Ohio\\_Regulatory\\_Update.php](http://www.strategicenergy.com/Ohio_Regulatory_Update.php).

<sup>7</sup> PUCO website [www.puco.ohio.gov](http://www.puco.ohio.gov)

<sup>8</sup> *Biennial Report of the State of Electric Restructuring*, Janine L Migden-Ostrander, Consumers’ Counsel, revised April 2, 2007, pp. 2, 6.

<sup>9</sup> Governor Ted Strickland, Toledo Regional Chamber of Commerce Legislative Briefing, May 1, 2007 at <http://governor.ohio.gov/>. Reported in *The Akron Beacon Journal* by Matt Reed, Tuesday May 1, 2007.

cost-effective than individual retail choice, brought down only by inappropriate structural or regulatory policies in Ohio? Or is it at best a marginal and politically risky alternative to individual retail choice or to regulation in place of choice? And is it at worst doomed to failure by virtue of its inherent limitations? Does it have implications for more conventional forms of retail competition and indeed for deregulation generally? Can municipal aggregation be recommended to other States and countries?

There seems to be little analysis of municipal aggregation other than by and for those parties directly or potentially involved. Rader and Hempson (2000) provide an extensive and sympathetic assessment for legislators and municipal officials of the benefits of municipal aggregation, with particular emphasis on the experience of the early states (California, Massachusetts and Pennsylvania).<sup>10</sup> Krassen (2005) provides a valuable survey of the statutes and experience of those US states that have implemented municipal electric aggregation. He concludes that “Municipal opt-out aggregation can be an important market design tool in gaining access to retail residential and small commercial electric markets by competitive suppliers.” Colton (2006) provides a thorough critique of experience in Ohio (primarily) with emphasis on some practical issues from community and consumer perspectives. He draws no single conclusion, but notes the limitations of municipal aggregation and the steps that must be taken if it is to be broadly acceptable.

This paper focuses mainly on electricity. It covers in turn the background to electricity deregulation in Ohio, the relevant legislation and its implementation in the form of the Electric Transition Plans of 2001-5, the prescribed conditions for municipal aggregation, the formation and operation of NOPEC and the role of consultants, subsequent experience and the determinants of municipal aggregation, the costs and savings of aggregation, the history of retail competition in Ohio and growing concerns about it, the Rate Stabilization Plans of 2006-8, and the recent events of mid-2007. There is then a brief comparison with retail competition and municipal aggregation in the Ohio gas sector. A final section summarises and concludes.

## **2. Background to municipal aggregation and electricity deregulation in Ohio**

Ohio’s endorsement of municipal aggregation, and the form that it took, was influenced by the experience of California and Massachusetts, the two earliest US states to adopt electricity deregulation. Both opened their markets to full retail competition in March 1998.

California rejected the concept of opt-out municipal aggregation (see below), allegedly in response to resistance by incumbent utilities. It made provision for opt-in aggregation, whereby municipalities, like any other supplier or aggregator, could invite citizens to join an aggregation program in order to negotiate better terms of supply. Palm Springs, in discussion with Enron, took this route. An early mailing to the city’s 29,000 residents and

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<sup>10</sup> An additional study of the implications for a particular state is: *Municipal Aggregation in Illinois: An estimate of the potential costs and savings from municipal aggregation for selected Illinois communities*. A Report to the Illinois General Assembly, prepared by the Illinois Commerce Commission, with assistance from the Center for Neighborhood Technology/Community Energy Cooperative, c 2003.

businesses elicited a 30 per cent ‘interested’ response, which would meet the 25 per cent benchmark set by Enron. But in the event only 8.5 per cent of the customers signed up with the city. The program was expensive to market and uneconomic to provide at that level, and was eventually discontinued.<sup>11</sup>

Massachusetts took a different line. Back in 1996, Barnstable County had explored and proposed the concept of opt-out municipal aggregation. Under certain conditions, municipalities could negotiate for their citizens unless the latter actively opted out. Provision for this was incorporated in the Massachusetts deregulation bill of November 1997. By the time the market opened, the Cape Light Compact was established, which now represents all 21 towns of Martha’s Vineyard and neighbouring Barnstable and Duke Counties. In total these comprise nearly 200,000 consumers. Initially, however, Cape Light could not get a bid that was lower priced than the standard offer price in Massachusetts. Later, as a pilot project, it was able to provide electricity for about 45,000 customers that would otherwise be on the default service plan, which had a higher electricity rate. (This plan would include those customers who had switched away from the standard offer service or who had moved into the area.) Since 1998 the Compact has negotiated several electric supply contracts embodying modest price discounts on behalf of these consumers. The Compact has also offered energy conservation and similar programs to its members.

Ohio decided to adopt electricity deregulation in 1999. In doing so it enabled utilities to recover their stranded costs. There was some feeling that utility regulation in Ohio had tended to favour the utilities.<sup>12</sup> The mayors of two cities in northeast Ohio (Eastlake and Brookpark) were particularly concerned to get the benefits of deregulation for the residential and small business users within their cities. They were aware of the thinking behind aggregation, and of the salutary and different experiences of Massachusetts and California.<sup>13</sup> Ohio also had a favourable experience with municipal trash aggregation.<sup>14</sup>

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<sup>11</sup> <http://www.local.org/califor3.html>, <http://www.local.org/weakaggre.html>. The experience of Palm Springs is not unusual. I am told that opt-in aggregation programs in other states (e.g. Pennsylvania and New Jersey) typically struggle to get more than about 5 to 6 per cent participation. Subsequently, opt-out aggregation has been allowed in California with the passage of Community Choice Aggregation (CCA) in Assembly Bill 117 in 2002. A dozen or so cities are exploring this option, subject to guidelines from the California Public Utilities Commission, with a particular emphasis on green energy and long-term resource planning. They say that “the most common reasons for forming a CCA include increased use of renewable generation, local control of rate setting, economic growth and lower rates”. Local Government Commission at [www.lgc.org/cca](http://www.lgc.org/cca).

<sup>12</sup> I am told that the PUCO is rated one of the top 2 or 3 most investor-friendly regulatory commissions. I have only seen the Salomon Brothers 1984 assessment, which ranks Ohio D+ in the range from A (best) to E (worst). Perhaps things have changed since then.

<sup>13</sup> I understand that advisers to municipalities in Ohio included Scott Ridley, a sometime consultant to the Cape Light Compact, described as ‘the father of municipal choice’ (Roberts 1999). His earlier writings include Ridley (1995, 1997). Glenn Krassen, a present attorney to NOPEC, was part of the team advising Eastlake and Brookpark. Leigh Herrington, the present Executive Director of NOPEC, was an Ohio state senator at the time the electricity deregulation legislation was passed.

<sup>14</sup> In the absence of other provision, householders had to contract individually for their trash to be collected. When municipalities were able to contract with a single provider this reduced costs because the collector had economies of greater density, there was less trash on show because it was all put out on the same day, and there was less wear and tear on the roads. For a survey of policy and experience at that time, see Lynn

Provision for opt-out municipal aggregation was incorporated into Senate Bill 3, which provided the framework for electricity deregulation in Ohio.

A factor in Ohio and Massachusetts adopting opt-out municipal aggregation seems to have been their Home Rule status. Municipalities in such States have a right to take such actions as are not explicitly denied to them by the State. In contrast, the rights of municipalities elsewhere depend to a greater extent on the explicit granting of such rights by the State.

### 3. Electricity deregulation in Senate Bill 3

Ohio has a number and variety of electric utilities. As of 2006 there were 7 investor owned utilities owned by 4 separate holding companies, whose sizes in terms of total number of customers as at December 2006 were:

FirstEnergy (FE)		2.1m
Cleveland Electric Illuminating	0.7m	
Ohio Edison	1.1m	
Toledo Edison	0.3m	
American Electric Power (AEP)		1.5m
Columbus Southern Power	0.7m	
Ohio Power	0.7m	
Cincinnati Gas & Electric (CG&E), now Duke Energy (Ohio)		0.7m
Dayton Power and Light (DP&L)		0.5m.

There are also 25 rural electric companies (or co-ops), serving nearly 0.4m customers.<sup>15</sup>

Senate Bill 3, signed into law in 1999, provided for the market to open on 1 January 2001, and for a five-year market development period from then until 31 December 2005. The Bill seems to have been well researched and set out. Each utility was required to file a proposed Electric Transition Plan, which had to include

- a rate unbundling plan
- a corporate separation plan
- an operational support plan
- an employee assistance plan
- a consumer education plan
- an application to recover transition revenues (if sought)
- a plan for independent operation of transmission facilities (or an explanation why its existing operation is consistent with requirements) and
- a shopping incentive plan.

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Scarlett and J M Sloan, *Solid-Waste Management: A Guide to Competitive Contracting for Collection*, How-to-Guide No. 16, August 1996, at <http://www.reason.org/htg1.pdf>.

<sup>15</sup> These rural electricity companies thus serve less than 10 per cent of the Ohio population but their combined service territory covers about 40 per cent of Ohio's land area.

The rate unbundling plan had to show separate rates for generation, transmission, distribution and other components. The generation component had to provide separately for a transition charge and a regulatory asset component, and for a fuel component. The tariff schedules in the rate unbundling plan had to provide for the generation component to reduce by 5 per cent for all residential customers.

The corporate separation plan sought to prevent any competitive advantage from corporate affiliation (common ownership or control). It was fairly extensively specified.<sup>16</sup>

The operational support plan had to specify the steps that would be taken in the transition to customer choice. It had to identify the staff responsible for each step, and describe how the relevant information and other services would be provided.

The employee assistance plan was to assist employees adversely affected by staffing changes resulting from restructuring. It had to explain how the utility would mitigate the impact of any changes on its staff and service reliability.

The shopping incentive plan was rather distinctive and explicit.

“The proposed shopping incentive must be sufficient to cause customers representing at least twenty per cent of the load of each customer class to switch generation suppliers to someone other than the incumbent utility by the midpoint of the utility’s market development period but not later than December 31, 2003.”

The utility had to present a report demonstrating that the proposed shopping incentive would achieve this target, with specified adjustments after the first and second years in the event that the actual switching rates were different from those predicted.<sup>17</sup>

Each company submitted its Electric Transition Plan along these lines. Typically the plans involved provisions for transition charges and regulatory asset components (to cover stranded costs) that critics considered on the high side, but they also embodied rate freezes (after the 5 per cent reduction in the generation component) that obtained for the five-year period.<sup>18</sup>

The shopping incentive plans varied from one company to another. For example FE made available a limited supply of discounted generation in its service territory (so-called Market Support Generation or MSG) that could be used by marketers to compete against FE itself. CG&E (later Duke) put incentives into the shopping credits of the first X% of

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<sup>16</sup> Utilities were not allowed to supply both competitive and non-competitive retail service unless approved by the PUCO. Cross subsidies were prohibited, costs had to be properly allocated in accordance with a Cost Allocation Manual, there was to be no sharing of employees and facilities, separate accounts and financing had to be maintained, customer information could not be released to an affiliate, tie-ins to affiliates were prohibited, the utility could not unduly discriminate or favour its affiliates, and employees had to be properly trained to implement these policies.

<sup>17</sup> See Rules on the PUCO website.

<sup>18</sup> The PUCO explained that “During this period, rates were frozen in order to allow a competitive wholesale market to develop.” The logic of this is not entirely clear. Rader and Hempson (2000) suggest that “legislated rate freezes and reductions” are “a few of the many ways in which a statute that seeks to create competition actually may discourage it”. (p. 74)

customers to switch, depending on rate class.<sup>19</sup> Companies had an incentive to comply with the shopping incentive provision in their plan in order to ensure the recovery of their stranded costs per other parts of the plan.

#### **4. Municipal aggregation procedures**

Senate Bill 3 (s 4928.20) provides that the following process has to be followed in order to implement municipal aggregation (also called government or governmental aggregation).

- The relevant authority of a municipal corporation, a township or a county may resolve to aggregate retail electricity loads and may enter into service agreements thereto. (This does not extend to the territories of non-profit electricity suppliers such as rural cooperatives or municipal utilities.)
- The resolution has to be put to the electors at the next primary or general election in that location, and has to receive majority approval of those voting.
- The authority then has to develop a plan of operation and governance for the aggregation program, and hold at least two public hearings on it.
- Persons affected must be notified of the rates and conditions of enrolment. Anyone may opt out of the program every two years without paying a switching fee, and may choose another supplier or may default to the incumbent utility's standard offer service.

A governmental aggregator then has to apply for certification from the PUCO. The conditions that the operation and governance plan should meet for this purpose are set out extensively (s 4901:1-21-16). "The plan shall be sufficiently detailed to allow customers to readily understand the services that the governmental aggregator is to provide and to compare those services to similar services provided by competitive suppliers." It must be written in clear and plain language. And it must cover many specified topics.<sup>20</sup>

Once certified by the PUCO, the aggregator requests relevant data from the local distribution company. Each Electricity Distribution Utility (EDU) is required "to cooperate with certified governmental aggregators to facilitate the proper formulation and functioning of governmental aggregations". This includes providing "an updated list of names, account numbers, service addresses, billing addresses, rate codes, percentage of income payment plan codes, load data, and other related customer information for all

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<sup>19</sup> Shopping credits are the allowances that the incumbent utilities provide to their customers for buying electricity from an alternative supplier. In principle they reflect the savings that the utility makes from not having to purchase electricity for a customer (or provide related retail services such as billing, collection and complaint handling). The larger the shopping credit, the greater the incentive to switch supplier.

<sup>20</sup> It must contain a detailed descriptions of services provided, the process that will be used to determine the rates to be charged, the plan for providing opt-out notices and designing and implementing opt-out procedures, the customer classes to be included, the plan for billing customers, a listing of credit or deposit procedures, customer service provisions and dispute resolution procedures, policies for customers moving into or out of the area, and policy on the ability of a customer that has previously opted out to rejoin the aggregation.



customers residing within the governmental aggregator's boundaries".<sup>21</sup> The EDU has to switch governmental aggregation accounts under the same processes and within the same time frames for switching other customer accounts. There is also provision for consolidated billing, so the individual consumer continues to receive his or her bill from the local utility.

After going through the opt-out procedures, the aggregator prepares the database for enrolment of remaining customers, and deals with any queries. It then implements the power purchase agreement that has typically already been negotiated towards the start of the process.

### **5. NOPEC, consultants and the aggregation procedure**

The above procedures are potentially complicated and burdensome, time-consuming and costly. Some would say they are beyond the reach of smaller communities. In practice, however, arrangements have been developed to handle the procedures with minimal disruption and cost.

At the beginning, the utility FirstEnergy agreed to fund the start-up of a municipal aggregation project for the group of NOPEC municipalities that had pressed for this approach. (Recall that each utility had to make shopping incentive arrangements to lose 20 per cent of its customers.) This enabled the NOPEC group to finance the legal, public relations and consulting work necessary to begin the procedure. By November 2000 NOPEC was able to put issues on ballots and in the event obtained passing votes from 94 municipalities.

NOPEC put together an RFP (request for proposal from potential suppliers). Two suppliers responded: Green Mountain Electricity Co (GREC), a new supplier from Texas, and AEP, an incumbent utility in other parts of Ohio. FirstEnergy Solutions Corp (FES), the unregulated subsidiary of FirstEnergy, the incumbent utility in this area, did not bid. At this time, just before Enron collapsed, wholesale prices were very high. NOPEC signed a six-year contract with GREC at a price initially 1 per cent below the standard offer price, to be renegotiated each two years. This was a very small discount, but NOPEC felt that the price could be improved over time, and that it was important to get competition going in Ohio.

Other municipalities followed suite. Some joined NOPEC, which over time grew to some 113 active members on the electricity side. Akin to NOPEC are NOAC (the Northwest Ohio Aggregation Coalition) that presently has nine communities actively using municipal aggregation, and MVCC (Miami Valley Communications Council), a council of governments serving eight member cities in the South Dayton, Ohio, suburbs. But not all municipalities wish to join an organisation, since there can be disadvantages as well as

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<sup>21</sup> In practice, the provision of such information has proved critical. Another practical lesson is that inadvertent switching of customers already with another supplier has caused them to incur penalties, so revised procedures prohibit mailing to any customer that has already selected another supplier.

advantages.<sup>22</sup> Consultants therefore offered their services.<sup>23</sup> So did suppliers themselves.<sup>24</sup> To minimise the burden on an individual community, these organisations provided the aggregation services required.<sup>25</sup> In fact, it has been suggested that the whole process tends to be consultant-driven.<sup>26</sup>

It might take about four to six months for a municipality to get an aggregation issue on the ballot (two to three months of discussion with local officials and another two to three months to get through the legislative process). A typical timetable thereafter might be as follows:

Contract negotiations with potential supplier	3 – 4 weeks
Development of governance plan and public hearings	1 month
Application filed with the PUCO, considered and accepted	1 month
Community data requested from EDU, received, cleansed	2 weeks
Opt out package sent out plus 21 day period	3 weeks
Database prepared, enrolment, handle customer calls	7 – 8 weeks
Begin to supply power to customers, file PUCO quarterly report	1 – 2 months.

This suggests that, if all goes smoothly, a community can be supplied by a municipal aggregation program within little more than a year of first raising the issue.

## 6. Municipal aggregation: experience to date

Some 215 ballots have so far been held in Ohio. The communities involved have varied greatly in size, from Cleveland with a population of 495,817 (224,311 housing units) down to Centerville with population 134 (50 housing units). The median population is about 8,300 (about 3300 housing units).

Table 1 shows the extent to which communities have adopted municipal aggregation, and on the basis of what organisational support. 204 communities have now passed municipal aggregation ballots, of which 152 are presently actively supplied on this basis. Another 52 are presently inactive, presumably because they are unable to find a sufficiently attractive offer from a supplier. 11 communities have tried but failed to pass a ballot (four of which have subsequently succeeded).

<sup>22</sup> Some suggest that NOPEC may have alienated suppliers by being too demanding, and member municipalities by being insufficiently responsive and open.

<sup>23</sup> Consultants associated with municipal aggregation include AMP-Ohio, E Group (an energy efficiency affiliate of FES), Independent, Eagle Energy and Buckeye Energy Brokers Inc (an electricity generation and transmission co-op owned by the 25 rural electricity co-ops).

<sup>24</sup> By far the most active supplier at present is FirstEnergy Solutions Corp (FES).

<sup>25</sup> For example, FES offers a turnkey aggregation program that includes a draft governance plan, assistance with public hearings, file certification application and the PUCO letter, design, printing and mailing of the Opt-out letter, administration of the Opt-out process (including database input, final list compilation and database maintenance), provision of call center services to handle residents' inquiries, training of municipal staff, and provision and filing with the PUCO of required quarterly and annual reports.

<sup>26</sup> "Towns tend to be approached with a proposal that they aggregate their load (as opposed to deciding to do so and then seeking appropriate assistance)." Colton (2006) p. 5.

All the active communities are in FirstEnergy’s territory. 113 are with NOPEC, 9 with NOAC, 11 are advised by other consultants and 19 are advised by FES. In all cases the supplier is FES. This means, for example, that FES is both a supplier to NOPEC and its competitor. By the same token, it is said that the existence of NOPEC has required FirstEnergy to offer more competitive terms and discounts than it otherwise would have done.

Table 1 Number of communities subject to municipal aggregation in Ohio, 2007

Organisation or consultant/supplier	In FirstEnergy territory	Outside FirstEnergy territory	All territories
NOPEC/FES	113		113
NOAC/FES	9		9
FES/FES	19		19
Other consultants/FES	11		11
Inactive: Other consultants/no supplier	9	18	27
Inactive: No consultant/no supplier	13	12	25
Failed ballot	9	2	11
Total Active	152	0	152
Total Passed but Inactive	22	30	52
Total Failed ballot	9	2	11
Overall Total	183	32	215

Source: FES

What is the extent of support for municipal aggregation, once a proposal gets to the ballot? For the 204 ballots where the proposal has succeeded, the range of support has been 54% to 95% as a percentage of those voting, with a median of 67%.<sup>27</sup> This degree of support for a ballot proposition is regarded as relatively high.

In total the proposal failed in only 11 ballots. The range of supporting votes there was 35% to 50% with a median of 49%, so most of these proposals failed only narrowly. It is not thought that the No votes reflect particular opposition to municipal aggregation. On any ballot issue a substantial proportion of electors are said routinely to vote No – for example, because they don’t understand the issue or don’t want change or don’t want to encourage a larger role for government.

In some cases the issue is further clouded by votes of those not directly affected. Senate Bill 3 provides that aggregation may be put on the ballot by a municipality, township or county. In Ashland the issue was put to the whole county and the aggregate vote in favour was 43%, so the proposal failed. Analysis of voting patterns shows that voters in

<sup>27</sup> The proportion of electors voting at all, as a proportion of those eligible to vote, was 60 per cent in the 2004 US presidential election. It might be of the order of half to one third of that in a local election.

townships supplied by four rural electricity cooperatives voted heavily against the proposal, even though municipal aggregation could not legally apply to these consumers. In fact 4 out of 15 individual townships in Ashland County showed a majority vote in favour of aggregation.<sup>28</sup>

The extent of individual opt-out in a municipal aggregation program, once established, was initially in the 10 to 20 per cent range. More recently it is reportedly around 8 to 10 per cent, as consumers have become more familiar with the concept.<sup>29</sup>

## **7. Determinants of municipal aggregation**

What determines whether a municipality proposes municipal aggregation? Colton (2006) argues that the coverage of municipal aggregation is not evenly spread over different kinds of communities. He takes the 207 communities that had then decided to pursue municipal aggregation in Ohio and calculates the number falling in each decile of Ohio's 1054 communities ranked by size. He finds that the degree of participation in municipal aggregation increases with size of community. For example, the participation rate is only 2 or 3 per cent in the smallest two deciles, 14 to 18 per cent in the middle two deciles, 37 per cent in the second-largest decile and 61 per cent in the largest decile. He concludes that

Small communities tend to be excluded from municipal aggregation proposals. ... The exclusion of small communities from municipal aggregation initiatives appears to flow not simply from the lack of resources to participate, but rather from the decision of marketers of municipal aggregation not to pursue the smaller loads associated with small communities.<sup>30</sup>

Using a similar analysis, Colton also finds that participation in municipal aggregation is positively related to a community's average per capita income. Here the participation rises from 3 or 4 per cent in the lowest two deciles to 41 to 47 per cent in the highest two deciles.

It is not clear that smaller and lower income communities are as underrepresented as these data suggest. For example, the study does not seem to have removed communities located in the territories of rural electric cooperatives, which are not eligible for aggregation by law. Such communities would tend to be smaller in terms of population and also lower income.<sup>31</sup>

Experience in the territory of Cleveland Electric Illuminating also casts doubt on the claim. Here, all but six communities (that is, nearly 100 communities) are part of an

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<sup>28</sup> Source: FES. In fact 5 of the 11 failed proposals involved the unincorporated parts of counties rather than individual townships. 4 county ballots succeeded, including one that failed on an earlier occasion.

<sup>29</sup> Source: FES.

<sup>30</sup> Colton (2006) pp. 13, 14.

<sup>31</sup> The referee mentions rural electricity cooperatives as another means by which consumers can aggregate their loads. This lies beyond the scope of the present paper.

active aggregation scheme. Four of those communities (including Cleveland itself) have actually passed an aggregation ballot but are presently inactive. Only two communities have not placed an aggregation issue on the ballot. But this is apparently by choice rather than a result of lack of interest by marketers.<sup>32</sup>

It seems plausible that a significant determinant of whether a community proposes and adopts municipal aggregation is the scope for savings compared to the regulated price of the incumbent supplier. (The particular pattern of regulation including the price to beat and any shopping incentive may also impact on this decision.) For a simple test of this hypothesis, Table 2 shows the size of each utility and the number of aggregating communities that there would be in each utility territory if the total of 215 communities that have put aggregation on the ballot in Ohio were distributed between the utilities in proportion to size of utility. It sets out the number of communities in each utility territory that have actually put aggregation on the ballot. The ratio of the actual to the proportionate number of aggregating communities is then compared to the average monthly electricity bill. (The data are for a low-income low-usage (600kWh/month) residential customer, as of 2002, in the case of four utilities where this information is available.)

Table 2 Interest in aggregation: actual compared to proportionate

Utility	Size (number of customers m)	Proportionate share of aggregating communities	Actual number of aggregating communities	Ratio Actual to Proportionate	Average low income electricity bill 2002
First Energy					
CEI	0.7	31	104	3.35	\$77
OE	1.1	49	65	1.33	\$67
TE	0.3	13	14	1.08	
CGE/Duke	0.7	31	8	0.26	\$52
AEP					
OP	0.75	34	2	0.06	\$44
CSP	0.75	34	7	0.21	
other			1		
DPL	0.5	22	14	0.64	
Total	4.8	214	215	1.00	

<sup>32</sup> One community, at the time, did not agree that the municipal government should be making decisions on behalf of the residents. It felt that residents could find adequate information on their own and make a better, informed decision. This community was also not interested in joining such a large organization as NOPEC in which it would have little or no say in the direction of the organization. The other community is a very small township (population 143 in 43 housing units) and seems to have been inadvertently overlooked by the local marketer on the assumption that it was part of the neighbouring village with the same name. Since this community is completely surrounded by NOPEC communities it would have knowledge of the issue and could have joined in if it chose to.

Source: Table 1 and information above; average bills from NEAAP in Table OH-2 at <http://neaap.ncat.org/experts/Ohio.pdf>.

The results are shown in the final two columns of Table 2. In the territory with the highest average electricity bill (Cleveland Electric Illuminating at \$77), the number of communities that have actually aggregated or put the issue on the ballot is over three times the number that would be proportionate to the size of that utility's territory. In the territory with the second highest bill (Ohio Edison at \$67) the actual number is about one third higher than the proportionate number. In the territory with third highest bill (CGE at \$52) the actual number is about one quarter of the proportionate number. And in the territory with the lowest bill (Ohio Power at \$44) the actual number is only 6 per cent of the proportionate number.<sup>33</sup> These results are consistent with the proposed hypothesis.

Why did NOPEC and NOAC set up and survive in northeast and northwest Ohio rather than in other parts of the state? Credit is obviously due to the pioneers in NOPEC and NOAC. They saw the scope for municipal aggregation and followed this through. But is it an accident that municipal aggregation took place mainly in FirstEnergy territories rather than in other territories in Ohio? Table 2 suggests not. It is of course a rough and limited calculation, but it is consistent with the conjecture that a community's and potential supplier's interest in aggregation is primarily determined by the potential gains that might flow from it, rather than by size or income of the community in question.

## **8. Some concerns about municipal aggregation**

Various reservations have been expressed about municipal aggregation. For example, competitive retail providers have to provide information to the PUCO when seeking to renew their certification. Is this adequate? Colton (2006) argues that "regulatory protections appear to have failed to identify, let alone raise warnings of, the impending collapse of the GMEC multi-year contract with NOPEC". (p. 8) Note, however, that aggregators generally build protection into the contract with the supplier to protect them from default. On this basis NOPEC was able to obtain a \$5m payment from GMEC when the courts ruled on the contract between them.

Colton further argues that "The failure of power marketers serving municipal aggregators to fulfil the terms of their contracts places significant numbers of residential customers at financial risk." (p. 20) This depends on the 'return to standard service' rules that are in place with the incumbent utility. In the NOPEC example, customers were at risk only for lost savings if NOPEC did not find a supplier to replace GMEC. There was no penalty for customers returning to the utility. In a POLR (provider of last resort) situation, the return to service rules could expose customers to higher prices than if they had not switched. This would seem to be a matter for the regulatory body and the incumbent utility, rather than a concern specific to municipal aggregation.

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<sup>33</sup> These results would be accentuated if the actual number of communities interested in municipal aggregation were based on ballots up to 2002, to match the 2002 average bill data, instead of ballots to date. 94% of the ballots in FE territory (including Cleveland Electric Illuminating and Ohio Edison) were in place by 2002 compared to only 28% of those outside FE territory (including CGE and Ohio Power).

Colton also suggests (pp. 23-4) that some Ohio aggregation initiatives exclude customers that are not ‘current’ on their bills (i.e. where payment is overdue), or customers that subsequently move into an area; both of these exclusions disproportionately affect lower income households. He contrasts this with California, which explicitly requires that municipal aggregation make participation available to all residents of a community.

Ohio natural gas aggregation programs do indeed exclude customers that are not current on their bills. This acts to protect suppliers from non-payment in the face of unfavourable payment hierarchy rules. In contrast, Ohio electricity aggregation programs do not exclude such customers since electricity payment rules are typically more reassuring.<sup>34</sup>

More generally, the governance plan filed with each aggregation application to the PUCO (see above) contains a section detailing how new participants or ‘movers’ will be included in the program. Most plans leave it up to the selected supplier. In many programs, ‘supplemental’ opt-outs are included, between the two-year opt-outs, to allow for other customers to be enrolled. Some programs also accept any customers who seek to enrol in the aggregation program even if this is not during an opt-out period.

## **9. Aggregation and competition**

Rader and Hempling (2000) suggest that the obligation on municipalities to seek the direct approval of the electorate is likely an attempt to hinder aggregation efforts. Municipalities purchase other services for their inhabitants without the need for such explicit endorsement. Also, “requiring municipalities to allow frequent, unrestricted opt-outs could either compromise their ability to obtain attractive bids or increase program costs for all other consumers, or both”.<sup>35</sup> Ohio’s aggregation law, entitling consumers to opt-out every two years without a fee, is instanced as such a restriction.

In practice, this does not seem to have been a serious restriction. Electricity contracts have been signed for varying periods up to six years, with provision to review the price each two years. Some would argue that greater consumer benefits could be obtained by signing longer firm contracts, say in the range 3 to 5 years (or by entering 10 to 15 year contracts to share the construction and operation of base-load plant). However, on the whole this opt-out provision has proved workable in electricity. In the gas sector the obligation is less problematic insofar as the fluctuating wholesale prices in the gas industry have meant that signing long-term contracts may itself present a problem.

On the positive side, municipal aggregation provides competitive opportunities that would otherwise not exist. For example, the following section shows that a supplier can contemplate the possibility of supplying about 90 per cent of the eligible customers in a

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<sup>34</sup> Each Electricity Distribution Utility has its own rules in place as to the order in which parties get paid. Thus in FirstEnergy (FE) territory, the hierarchy is: supplier past due, FE past due, FE current, supplier current. Each supplier has to determine its own collection and cancellation policy, which must be included in the customer notification documents filed with the PUCO.

<sup>35</sup> Rader and Hempling (2000) p. 69.

municipality for a relatively low acquisition cost. This opens up the possibility of entering that market whenever the incumbent's price rises to any significant extent above wholesale market price. Suppliers in Ohio are in fact actively considering such possibilities, not least in those areas not yet fully open to competition.

For their part, regional councils like NOPEC and even some individual municipalities are actively considering the possibility of forming their own not-for-profit companies to purchase and resell electricity, and even to buy and operate generation assets.<sup>36</sup> Development of the MISO transmission system now provides access to a wider range of generators in other Midwest states. Since municipalities can borrow at more advantageous rates than commercial entities, some see the possibility of using this to advantage in the competitive market.

### **10. Costs of municipal aggregation**

The service of securing municipal aggregation and inviting tenders for supply seems to be provided on a relatively competitive basis by a variety of consultants and/or suppliers. Typically, there is no upfront cost to the community or its electric consumers. Instead, the consultant's charges are paid by the eventual supplier (which might be the same organisation) and rolled up into the winning bid. In other words, the discount off the incumbent's 'price to beat' is a little less than it otherwise would have been, by the amount of the consultant's or supplier's charges for organising the aggregation process.

The costs involved no doubt vary to a small extent from one municipality to another, and from one consultant to another, and have evolved over time. In the early days it is reported that "Parma apparently spent close to \$200,000 in acquiring and paying for the expertise to negotiate its power supply deal."<sup>37</sup> With under 40,000 households in Parma (a town in northern Ohio), that would be about \$5 per customer, but it is not apparent that this includes the cost of securing acceptance of municipal aggregation in the first place. Costs are likely to have fallen over time as the procedure has become more standardised.

Membership of an organisation like NOPEC provides access to NOPEC's expertise and negotiating power without a municipality having to go it alone. NOPEC's annual budget of under \$1 million (reimbursed by the competing suppliers) is perhaps of the order of \$1 per household customer per year.<sup>38</sup>

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<sup>36</sup> NOPEC had earlier stated its goal "to make NOPEC its own electricity supplier, buying generation directly for our customers to maximise savings". Chairman's Report, *NOPEC 2005 Year-End Report*. In May 2007 NOPEC formed a not-for-profit corporation NOPEC Inc that will provide power to NOPEC. On 3 August 2007 NOPEC Inc filed an application with the PUCO for certification as a retail generation provider and power marketer. "NOPEC Inc will enter into ... one or more electric supply contracts with electric generators for wholesale electric supplies. NOPEC Inc will obtain the necessary FERC (Federal Energy Regulatory Commission) marketing license prior to commencing service." Application 07-0891-EL-CRS, Exhibit D-1 "Operations". "NOPEC Inc currently expects to begin CRES [Competitive Retail Electric Service] operations on or about January 1, 2009." *Affidavit of Leigh E Herrington* para 2.

<sup>37</sup> *National Energy Affordability and Accessibility Project* (NEAAP) at <http://neaap.ncat.org>. Part Two.

<sup>38</sup> The main elements of NOPEC's expenditure in 2005 were Legal litigation \$205,000, Legal Retainer Elec/Gas Aggregation \$192,000 and Communication Services Electricity \$120,000 and Gas \$60,000. NOPEC Year-end Report 2005.



My understanding is that, for taking a municipality through the process of municipal gas aggregation, including tendering for a gas supply and then monitoring that contract, consultants might charge about 5 cents per decatherm.<sup>39</sup> This works out about \$5 per customer per year.

The costs of acquiring customers individually are much higher. When the market first opened in California, Enron and other costs were reported in the range \$100 to \$600 per customer in terms of marketing and advertising.<sup>40</sup> Costs have surely decreased since then. NEAAP cited a range of \$50 to over \$200 in 2003. Estimates for initial acquisition costs given to me in Ohio were in the range \$30 to \$80. These costs presumably need to be spread over the typical duration that a new customer stays with a supplier.

In the UK, Ofgem has estimated the cost of acquiring customers individually at about £20 (about \$40) per customer per year.<sup>41</sup> My own calculations were broadly consistent with this.<sup>42</sup>

Whatever the precise costs, the big picture is clear. The cost of acquiring a customer via municipal aggregation may be nearly an order of magnitude less than the cost of acquiring a customer individually: in round terms about \$5 rather than \$50 per customer per year. Ultimately this cost has to be reflected in the terms offered to customers, and indeed in the scope for making an offer at all. Thus, municipal aggregation may enable a supplier to compete in circumstances where it might otherwise not be economic to do so.

## 11. Savings from municipal aggregation

What about the prices and discounts secured by municipal aggregation? Some early studies advocating municipal aggregation mention possible percentage savings on electricity bills into double figures. But these may reflect exceptional circumstances.<sup>43</sup> NEAAP's calculation in 2003 of the potential scope from aggregation assumed a saving for residential customers in the range 2 to 10 per cent of the generation portion of the bill, which in turn comprised about 60 per cent of the total bill.

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<sup>39</sup> 1 decatherm (1 dth or 10 therms) is approximately equal to 1000 cubic feet (1 Mcf) of natural gas.

<sup>40</sup> Rader and Hempling (2000), pp. 25-27.

<sup>41</sup> *Domestic Competitive Market Review: a review document*, Ofgem, 78/04, April 2004, at Appendix 11. This is based on an acquisition cost of £53.33 discounted over 3 years using a long-term risk free rate of 5 per cent.

<sup>42</sup> Acquiring customers via doorstep selling or internet switching sites might cost about £25 to £35 per switch, but suppliers would incur an additional cost of processing the customer of the order of £10 to £15, total approximately £35 to £50. Littlechild (2005), pp. 15, 60, 61. Whether customers would nowadays stay with a single supplier for an average of three years is less clear.

<sup>43</sup> Thus, the town of Parma was able to take advantage of the special limited allocation of low-cost power referred to earlier. As part of its shopping incentive arrangements, FirstEnergy made available so-called Market Support Generation to marketers in its territory in northern Ohio. This enabled a 17 per cent discount on FE's power prices. In Massachusetts, the pilot program was said to provide discounts of 11 to 22 per cent. The savings from NOPEC's first contract with Green Mountain Energy Co reportedly ranged from 1 to 15 percent depending on the customer, with 2 per cent being typical. NEAAP Part Two, *An analysis of opt-out aggregation in Massachusetts and Ohio*, last updated 11 April 2003.

At the very beginning, municipal aggregation offers in Ohio were couched in terms of a specified price per kilowatt hour. This caused concern for municipal politicians when it transpired that this price could translate into an advantage for some customer classes and a disadvantage for others, depending on the method of calculating the tariff for each class. In the light of that, provision was made for couching all offers in terms of a discount on the existing utility tariffs. This makes comparison shopping considerably easier, and has been popular with the politicians.<sup>44</sup>

The discounts received in 2006 by Ohio municipalities that have aggregated are as shown in Table 3. The residential discount is typically 4 or 5 per cent of the generation element, the commercial discount typically between 1 and 3 per cent.

Table 3 Price discounts in 2006 on municipal aggregation schemes

Area/scheme/supplier	Residential	Commercial
NOPEC/FE	5%	1%
NOAC/FES	-	3%
FES/FES (median)*	4%	2%
Other/FES (median)*	4%	2%
* Range	4 – 10%	2 – 6%

Source: FES

What does this mean in terms of dollar savings? A typical FES residential customer using 550 kWh per month with a 4% discount would save an estimated \$13.20 per year. A commercial customer using 3,500 kWh per month with a 2% discount would save \$40.88 annually. These are evidently not major savings, but they involved little or no effort or risk on the part of the customer.<sup>45</sup> But it is fair to say that not everyone is enamoured of the situation.<sup>46</sup>

<sup>44</sup> It does, however, depend upon there being a relevant published tariff against which to compare the bid. Some wonder how aggregators will fare if such a set of tariffs is no longer available, as might be the case if the incumbent utility ceases to provide or arrange service. (See also the discussion below of the gas market, where the volatility of prices has made it more difficult to get quotations in terms of discounts against incumbent utility tariffs.)

<sup>45</sup> These are illustrative calculations from FES. Other calculations differ in detail but not overall magnitude. NEAAP assumes a typical residential customer's bill of \$70 per month of which 60% (\$42) is generation; multiplying by 2% to 10% saving yields savings in range \$0.84 to \$4.20 per month, or \$10 to \$50 per year. A sample Ohio Edison residential shopping credit (generation component) would be 5.06 cents/kWh x 762 kWh/month = \$38.55, plus \$50.59/month for the regulated part of the bill, total \$89.14/month, or \$1069.68 per year. A saving of 4% on the generation component would be worth 0.04 x \$38.55 = \$1.52/month or \$18.24/year. Savings with NOPEC were evidently higher in earlier years. NOPEC's 2004 and 2005 year end reports say that individual consumers saved an average \$33 per year on their electricity bill. In those years they were receiving discounts of 6%.

<sup>46</sup> For example, I am told that the client groups of the Legal Aid Society of Cleveland want reliable utility service at a low cost and could care less whether this comes from aggregation, retail choice or regulated utilities. They see choice as complex and as a gamble that is vulnerable to manipulation.

Some have suggested that a major benefit of municipal aggregation is the ability to negotiate for a large number of customers, from many municipalities. However, suppliers suggest that the attraction of municipal aggregation is the relative certainty of a given load, regardless of size. Table 3 is consistent with this latter claim. In 2006 NOPEC was able to negotiate only a slightly (1%) higher residential discount for its one hundred or so communities than single municipalities were able to negotiate, while its commercial discount is slightly (about 1%) lower.<sup>47</sup> Moreover the city of Cleveland, by far the largest community in this territory, has not been able to negotiate a satisfactory service offer at all for 2006 – 08, as explained shortly.

## 12. The history of retail competition

Why are the savings produced by municipal aggregation presently so minimal? Does this reflect a lack of viability of municipal aggregation specifically, or a difficult situation facing retail competition generally?

Table 4 shows the percentage of customers of different rate classes that have switched to competitive retail suppliers as of December 2002, 2004 and 2006. The most obvious feature is that FirstEnergy utilities have been subject to very significant customer switching since the market opened, in all three customer classes but particularly amongst residential consumers. In contrast, other utilities have not. As noted earlier, this suggests that the main explanation for the emergence of municipal aggregation in North East Ohio is not specific to NOPEC. It is related to the emergence of greater retail competition in FirstEnergy territories generally.

Table 4 Customers with Competitive Retail Electricity Suppliers in Ohio

Utility territory	December 2002			December 2004			December 2006		
	Res %	Com %	Ind %	Res %	Com %	Ind %	Res %	Com %	Ind %
<i>FirstEnergy</i>									
Cleveland Elec.	60	59	25	69	75	25	8	10	14
Ohio Edison	26	25	31	33	37	36	19	24	17
Toledo Edison	41	40	20	48	52	23	11	52	22
<i>AEP</i>									
Columbus	0	1	0	0	2	0	0	1	0
Ohio Power	0	0	0	0	0	0	0	0	0
<i>Dayton P&amp;L</i>									
Dayton P&L	0	0	4	0	2	15	0	1	8
<i>Cincinatti/Duke</i>									
Cincinatti/Duke	2	3	3	3	4	5	2	1	1

Source: PUCO reports.

<sup>47</sup> And even the 1% higher residential discount seems to reflect a quid pro quo for the incumbent company, as noted below.

A main factor is price. “The competitive market has been the most successful in the three FirstEnergy service territories where electric rates are the highest in the state.”<sup>48</sup> Table 5 juxtaposes the average bills in 2002 and June 2004 against the residential switching rate in December of those same years. There is evidently a close relationship.

Table 5 Switching Rates and Average Electricity Bills in 2002 and 2004

Utility Territory	Average Bill (Low) 2002	Residential Switching Rate Dec 2002	Average Bill June 2004	Residential Switching Rate Dec 2004	Average Bill June 2006	Residential Switching Rate Dec 2006
Cleveland El III.	\$77	60%	\$95.63	69%	\$93.20	8%
Toledo Edison			\$91.75	48%	\$93.55	11%
Ohio Edison	\$67	26%	\$88.46	33%	\$90.44	19%
Dayton P&L			\$71.52	0%	\$76.48	0%
Columbus South			\$65.22	0%	\$71.62	0%
CG&E	\$52	2%	\$60.71	3%	\$79.24	2%
Ohio Power	\$44	0%	\$53.60	0%	\$58.33	0%

Sources: Average bills from Table 2 above for 2002 and for 2004 (average usage 750KWh/month) from *Ohio Utility Rate Survey*, PUCO Staff Report, June 15, 2004 at <http://www.puco.ohio.gov/emplibrary/files/util/UtilityRateSurvey/June04.pdf>. Ditto for June 2006. Average bills are available monthly from January 2004 but the switching figures in any month are likely to reflect rates in earlier months rather than in the same month. Switching rates from Table 4 above.

A second factor is the possibility that FirstEnergy offered more liberal shopping credits and other inducements than did the other utilities, because it had a greater incentive than other utilities to achieve the 20 per cent loss of customers to competitive providers.<sup>49</sup> Whether customers benefited to the same extent is another matter, since the settlement approved by the PUCO classified these shopping credits as a loan that was to be accumulated and then repaid by consumers in later years. But the subsequent reduction in the level of the credits was a source of major concern to NOPEC and NOAC, as noted below.

<sup>48</sup> OCC *Biennial Report 2004*, p. 4. “Ohio’s power system has two distinct areas. The average cost of power in northern Ohio, FirstEnergy territory, is considerably higher than in the rest of the state.” NEAAP Part Two. Strictly speaking, what counts is the difference between the approved tariff and the costs that a competitor would have to incur to provide supply in the territory, but retail tariff or average bill seems a good proxy.

<sup>49</sup> “The Ohio restructuring law gave investor-owned utilities in Ohio a strong incentive to shed customers. The utilities can recover their stranded costs only if they lose 20 per cent of their customers to competitive electric providers within a certain period of time. This affected FirstEnergy, in particular, because it had the highest stranded cost levels.” NEAAP Part Two.

A third factor is the clarity or otherwise of the ring-fencing arrangements put in place by the incumbent utility. FirstEnergy is said to have complied more conscientiously than other utilities with the unbundling provisions of Senate Bill 3. FirstEnergy created a set of distribution utilities and a separate energy/retail company, all reporting to a holding company. This is not to say that its separation procedures were as rigorous those in the UK or Texas, for example. Rather, the other utility companies made even more limited attempts at compliance. OCC says that the PUCO did not strictly enforce the corporate separation requirement of Senate Bill 3.<sup>50</sup>

Fourth, “there are situations in southern Ohio where utilities hindered the initial efforts local governments made to aggregate”.<sup>51</sup> OCC specifically identified two utilities. CG&E (later Duke Energy) required aggregators to post a bond against supplier defaults and refused to provide a listing of its customers. DP&L attempted to dissuade government officials from aggregating, charged aggregators or customers extra related to the possibility of default, and charged competitive suppliers extra for consolidated billing service.

### **13. OCC concerns about competition: the view from 2004**

As the Electric Transition Plans for the period 2001-5 came to an end, the PUCO proposed an extension of the transition period for a further three years 2006-8, via Rate Stabilization Plans (RSPs). The OCC and others were concerned about this proposal, and more generally about the way the electricity reform policy was being implemented. The OCC warned in December 2004 that the prospective Rate Stabilization Plans “could destroy competition and the savings from which customers in the economically strapped northern part of the state could benefit”.<sup>52</sup> It cited the testimony of NOPEC:

These [proposed] shopping credit levels ... are below the shopping credit levels in effect in 2003, and *substantially* below those currently in effect in 2004. The shopping credit levels ... will eliminate competition. ...

The elimination of shopping in FirstEnergy’s service territories during the rate stabilisation period through radical shopping credit reductions in the [RSP] Application will result in NOPEC’s approximately 455,000 consumers returning

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<sup>50</sup> Corporate separation “was seen as a necessary step to create a level playing field and to ensure that the generation affiliates of the electricity companies did not have a competitive advantage. It was also done to protect the utilities’ distribution customers from having to pay for the companies’ generation service. // The PUCO, however, approved the utilities’ interim corporate separation plans, none of which provided for full, structural separation of the ownership of their generation assets.” OCC *Biennial Report 2004*, p. 11. A concrete example was that in Ohio an affiliate of an incumbent distribution company was allowed to supply in that area whereas in Texas that was not allowed. In addition, utilities in Ohio were allowed to keep similar names for their competitive supply affiliates as for the incumbent networks, which gave the incumbents an advantage.

<sup>51</sup> OCC *Biennial Report 2004*, pp. 5,6.

<sup>52</sup> OCC *Biennial Report 2004*, p. 7.

to FirstEnergy-provided POLR [Provider of Last Resort]. This will be a disaster of epic proportions for the [Public Utility] Commission to deal with.<sup>53</sup>

In the OCC's view, the inadequate unbundling arrangements continued to impact adversely on competition. As a result "there has been a movement back towards requiring customers of distribution companies to pay for costs associated with generation". Examples included forcing customers who leave a utility to pay the cost of environmental controls for the utility's power plants, as well as forcing them to continue to pay for stranded costs after the initial rate transition period should have ended in 2005.

OCC identified yet other "problems that plagued the competitive market". For example,

Under the Commission's rules, sales by a subsidiary are counted towards the number of customers switching. In the FirstEnergy service territory, counting the number of customers that are switched to its subsidiary had the adverse impact of increasing deferrals that are charged back to customers in the Regulatory Transition Charge. Senate Bill 3 was never intended to create a link that penalized all customers through higher rates because some exercised their option to choose an alternative supplier.

OCC concluded that "the tenets of Senate Bill 3 are sound and that if implemented appropriately, customer choice can succeed". "Our consistent message has been that the PUCO and the utilities should just follow the law."<sup>54</sup>

#### **14. The decision to introduce Rate Stabilization Plans**

Given the competition concerns expressed by OCC, why were Rate Stabilization Plans introduced? The PUCO explains the development of policy as follows.

Senate Bill 3 ... provided for a five-year market development period from January 1, 2001 to December 31, 2005. During this period, rates were frozen in order to allow a competitive wholesale market to take shape.

As the end of the development period neared, the PUCO grew concerned that the limited number of competitive electric suppliers and low degree of market activity were an indication that an immediate shift to market-based rates in 2006 would not be in the best interest of customers. To minimise the effects of 'rate sticker shock' and gradually transition customers to market-based rates, the PUCO worked with Ohio's electric utilities to develop rate stabilization plans (RSPs). These plans, coupled with other recent rate modifications, eliminate market uncertainty and provide customers with stable, predictable rates for years to come.<sup>55</sup>

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<sup>53</sup> NOPEC as reported in OCC *Biennial Report 2004*, p. 8.

<sup>54</sup> OCC *Biennial Report 2004*, p. 13.

<sup>55</sup> *Electric Rate Stabilization Plans: Ensuring Rate Certainty in Ohio*. PUCO website. Also in *Testimony by the PUCO* (see fn 63 below).

Rate Stabilization Plans were put in place for each of the major utilities in Ohio. In general they provided for a three-year rate stabilization period: January 1, 2006 to December 31, 2008 (2010 for Dayton Power & Light). There were modest generation rate increases for AEP customers (3% a year for Columbus, 7% for Ohio Power), unspecified increases for Duke, and 11% increases for Dayton P&L. There was provision for FirstEnergy to conduct a competitive auction to see if lower rates could be obtained. The PUCO rejected the results of this auction, finding that its Rate Stabilization Plan already provided lower electricity rates.

By extending the transition period in this way, the RSPs effectively held electric rates below market levels for a further for three years. The PUCO's justification for this was that it was in customers' interests to minimise price uncertainty and to avoid, defer or phase in any necessary price increases. The PUCO evidently felt no need to apologise for keeping down prices to customers.

The PUCO was also able to point out that some of the arrangements that it approved were agreed in settlements and stipulations between the utilities and various parties representing consumer groups. In fact, both OCC and NOPEC signed a settlement with FirstEnergy agreeing to FirstEnergy's Rate Stabilization Plan. How did this come about? It seems that NOPEC was willing to support the RSP in return for a discount to its own members, and that OCC was willing to do so in return for the utility's commitment to support energy efficiency.

"In exchange for FirstEnergy's agreement with NOPEC to give former Green Mountain customers a 5 percent discount through 2008 and its commitment to put \$28 million into new programs to help consumers reduce consumption, Consumers' Counsel Janine Migden-Ostrander withdrew her opposition to the rate certainty plan. She had previously called the plan illegal. NOPEC also then agreed not to oppose the rate plan if the company accepted Migden-Ostrander's proposals. ... Under the rate plan, FirstEnergy will be able to tally up \$564 million in future rate increases over the next three years to account for increases in fuel costs and to pay for new neighbourhood power lines and substations. Beginning in 2009, the company will increase rates to pay off those accumulated increases over 25 years. Financing over the period would add another \$41 million, taking the total bill to about \$605 million."<sup>56</sup>

In their defence, OCC and NOPEC might argue that the RSPs were effectively done deals. They just salvaged what they could.

## **15. The effect of introducing Rate Stabilization Plans**

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<sup>56</sup> "Electric: FirstEnergy rate hike will also offer rebates", *The Plain Dealer*, November 5, 2005, C3. See also "Utility, agency reach deal", *The Akron Beacon Journal*, November 5, 2005; "Rebates, discounts key to FirstEnergy rate deal", *The Plain Dealer*, November 5, 2005, C1 and C3.

Holding electricity rates below market levels had a predictable effect on retail competition generally as well as on municipal aggregation in particular. Competitive providers could no longer beat or even match the prices set by incumbent utilities. Not only were new competitors deterred from entering the market, existing suppliers were driven to exit. For example WPS, the competitive retail electricity supplier to the municipal aggregation program in Cleveland, the largest city in Ohio, withdrew from the market (and from Toledo Edison territory) as from December 2005. It explained that FirstEnergy's RSP rendered FirstEnergy's generation rates artificially low, effectively subsidising them by deferring part of the cost until after 2008 when the deferred costs would be imposed on all customers.<sup>57</sup>

The cities of Cleveland, Euclid and Cleveland Heights were unable to find another supplier for the period 2006 – 08. NOPEC communities reverted to the standard service offer in Cleveland (CEI) and Ohio Edison territories (with the \$26m generation discount from FES). NOAC in Toledo Edison territory was no longer able to find a suitable supplier. The remaining switched customers made arrangements individually or with other smaller municipal aggregation groups.

Table 4 illustrates the impact on retail competition generally. Residential switching, already effectively limited to FirstEnergy territories, fell significantly from December 2004 to December 2006. Specifically, the proportions of residential customers with other suppliers in Cleveland, Ohio Edison and Toledo Edison territories fell from 69%, 33% and 48%, respectively, to 8%, 19% and 11%, respectively. There were also significant reductions in switching by commercial and industrial customers, at least in Cleveland and Ohio Edison territories.<sup>58</sup>

## **16. OCC concerns about competition: the view from 2007**

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<sup>57</sup> “The decision to exit the FirstEnergy territory electricity aggregation programs is related to the regulatory changes proposed by FirstEnergy, and then adopted by the PUCO, which makes it more difficult to provide competitively priced power in the FirstEnergy market area.// Unfortunately, development of the competitive retail market for the 2006-08 timeframe, is being hindered by the FirstEnergy rate stabilization plan (RSP). Under the RSP, customers pay an additional monthly charge to FirstEnergy. The RSP provides standard offer rates through 2008. In return, the standard offer rate will be increased only for FirstEnergy's fuel costs through 2008. Customers who shop can avoid only part of the RSP costs.// In order to avoid the highest percentage of RSP costs, customers must give the utility one-year advance notice of their intention to switch service to another supplier. The current RSP rates or 'price to beat' are below market prices for electricity. The plan allows the utility to defer costs above the RSP rate until after 2008. Customers will be charged these deferred costs, plus interest, after 2008. This approach keeps the FirstEnergy electricity generation rates artificially low and deters competition. Competitive suppliers do not have the ability to defer costs. Therefore, WPS Energy Services is unable to provide prices that offer savings off the utility's 2006 RSP rates at this time.” WPS Energy Services to Discontinue Service to Ohio Electric Aggregation Programs in FirstEnergy's Territory, *dBusiness News*, Cleveland, August 30, 2005.

<sup>58</sup> In Toledo Edison territory NOAC is a group of nine communities with a common consultant who arranges contracts for both electric and gas aggregation programs. FES has served the commercial and industrial customers in the electric aggregation program since 2001, and its offer for the period to 2008 was accepted. FES served residential accounts during 2004-05 but its offer for the period to 2008 was not accepted.



In 2007 OCC reverted to its previous argument, now with further evidence about the decline in retail competition.

It was envisioned when Senate Bill 3 passed that there would be significant marketing to individual customers. ... Unfortunately, what was envisioned never came to fruition largely due to the structure of the incumbent utility's Electric Transition Plans (ETP) which were later superceded by the equally problematic Rate Stabilization Plans (RSP). The bottom line is that in the six years subsequent to the passage of Senate Bill 3, competition has never had the chance it was entitled to under the law. ... The fact of the matter is that we do not know if competition can truly work because it has never been given a fair chance. ... Hybrid plans that provide the incumbent utilities with the flexibility to navigate between regulation and deregulation as it suits their corporate interests do not serve the public. The hybrid plans embodied in the Rate Stabilization Plans approved by the PUCO shift risk to the customers and away from the utilities. Ohio has yet to embark on a true competitive path as outlined in Senate Bill 3.<sup>59</sup>

The OCC had a general concern that the level of prices allowed under the Rate Stabilization Plans, and how these were determined, were not consistent with the original legislaiaon.<sup>60</sup> For present purposes, we focus on OCC's concern about the adverse impacts on retail competition. Taking each utility in turn, OCC argued as follows:

- FirstEnergy: customers of this utility have been faced with historically high electric rates. Stranded costs should have ceased at the end of the Market Development Period but were allowed to continue as a Rate Stabilization Charge to reimburse FirstEnergy for its risk in being the supplier of last resort. But whereas AEP's average charge for this service is 0.12 cents/kwh, FirstEnergy's average charge is 2.08 cents/kwh. In addition, FirstEnergy's shopping credits reduced under the RSPs whereas generation prices had been going up. The avoided generation cost and hence the shopping credit should have increased rather than decreased. Further, FirstEnergy promised not to increase rates to reflect rising fuel prices, but in fact made such a request and the PUCO agreed to spread the cost over all customers as a non-bypassable charge.
- AEP: the PUCO encouraged AEP to build an Integrated Gasification Combined Cycle (IGCC) plant. This was contrary to the requirements of corporate separation whereby the distribution companies can no longer own generation, thereby injuring the competitive market. Customers have no guarantee that this is least cost generation, there is no cap on the price, customers are required to pre-pay rather than pay when the plant is used and useful, and have to take the risk which

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<sup>59</sup> *Biennial Report of the State of Electric Restructuring*, Ohio Consumers' Counsel, revised April 2, 2007, pp. 1,2.

<sup>60</sup> The OCC argued that the Ohio Revised Code (containing all the Acts passed by the Ohio General Assembly and signed into law by the Governor) specified that, after its market development period, each incumbent utility should offer its customers both a market-based standard service offer and a competitively bid option. Instead of following this directive, the utilities filed Rate Stabilization Plans and the PUCO approved them. According to the OCC, this achieved revenue stability for the utilities but competition stagnated, thereby offering no relief from the utility rates.

properly resides with the utility. OCC has appealed this decision to the Supreme Court of Ohio.

- Cincinnati G&E (later Duke Energy): the PUCO approved a stipulation allowing Duke to recreate four new riders to collect additional revenue from all residential customers, but two of these should be by-passable by customers changing supplier.<sup>61</sup> OCC appealed and the Supreme Court held that the PUCO erred in approving the charges without evidentiary support. It also transpired that there were undisclosed side agreements between the utility and other signatories of the stipulation. “The Court also held that the PUCO abused its discretion in failing to require Duke to produce the side agreements OCC had requested during the case”.
- Dayton Power & Light (DP&L): Dayton’s market development plan was scheduled to terminate at the end of 2003. But because there was no competition the utility entered a settlement to extend this plan through 2005 and set up a rate stabilisation period for 2006 through 2008.<sup>62</sup>

The OCC’s view is thus that competition has declined and switching by individual residential customers is not occurring. This is a distortion caused - or at least condoned - by regulation, and specifically by the Rate Stabilization Plans.

This [outcome] is due in large part to the structure of the Rate Stabilization Plans which produce artificial shopping credits that are below the market price and are below the electric utilities’ true generation costs. With this reality, competitive retail electric suppliers are reluctant to commit their companies’ resources in a state where they are hindered from offering a competitive product. In order for the free market to work, the full generation prices of the utility company need to be avoidable, as was intended by Senate Bill 3, and which has yet to occur.

The PUCO chairman has recently testified that “there is significant evidence demonstrating that the prices customers are paying now under the RSPs are less costly than those that would result from market-based prices.”<sup>63</sup> The Governor of Ohio seems to recognise that electricity price increases cannot be avoided or deferred.<sup>64</sup> It remains to be

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<sup>61</sup> OCC had earlier complained that CG&E was proposing to recover the cost of a new generating plant through a non-bypassable charge as part of its RSP. *Biennial Report 2004*, pp. 10, 11.

<sup>62</sup> The PUCO’s adoption of the settlement embodying the two-year extension was challenged by a competitor Constellation NewEnergy Inc; the Ohio Supreme Court found in favour of the PUCO. The matter has not ended there. “Following the approval of rate plans that were more lucrative for other electric utilities, DP&L decided that the comparatively modest agreement it had signed was inadequate. DP&L requested further rate increases. Ignoring the initial settlement reached in the matter, the PUCO approved a new increase of \$185m for this small company. The OCC has appealed this decision.” (p. 6)

<sup>63</sup> *Testimony by the PUCO*, Alan R Schriber, chairman, Before the Senate Energy and Public Utilities Committee, February 27, 2007, p. 5. The testimony also attaches evidence and comparisons from other states.

<sup>64</sup> “One approach to the unfolding regulation situation we face is to opt for a band-aid solution that buys time and avoids, at least for a while, the worst of the rate increases in the hope that in a couple of years the electricity market will have changed and we can revisit the problem. I do not believe we have the luxury of that approach.” Strickland op. cit.

seen what regulatory arrangements are put in place after the present RSPs expire in December 2008. Some diverse alternatives are already under discussion.<sup>65</sup>

### **17. Retail competition in the Ohio gas market**

The natural gas market in Ohio provides a useful comparison to the electricity market. It gives some further indication of the market and regulatory conditions under which retail competition is feasible. It also highlights some of the issues in municipal aggregation versus other means of retail competition.

The gas sector in Ohio is nearly as diverse as the electricity sector there. There are now 26 regulated gas distribution utilities and five gas pipelines. Traditionally, the utilities would purchase gas, arrange for its transmission through the pipelines to their distribution facilities, and distribute it to their customers.

Beginning in the 1970s, industrial customers were given the opportunity to purchase gas directly from suppliers. Following the Natural Gas Alternative Regulation law of June 1996, this opportunity was extended to certain residential and small commercial customers in the state. Competing suppliers or marketers would purchase gas and ship it to customers via the same transmission pipelines and using the local distribution facilities. Three utilities began to offer choice in 1997, extended their choice programs company-wide by 2000, and a fourth utility offered company-wide choice in 2003.

High natural gas prices in the winter of 2000-2001 caused some suppliers to exit the program because of difficulties in meeting fixed contractual obligations. The number and variety of rate plans offered also decreased, and many marketers scaled back or froze efforts to acquire new customers. Nevertheless, by November 2004 significant percentages of customers of these gas utilities were on customer choice schemes with alternative suppliers.<sup>66</sup> Table 6 shows that the relationship with price is apparently less marked for gas than for electricity, for both residential and commercial customers. In particular, Dominion East Ohio had most customers with other suppliers even though its prices were the lowest. But that company was already making plans to move out of gas supply.

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<sup>65</sup> Duke Energy has reportedly proposed a ten-year price freeze. In contrast, on July 10, 2007, FirstEnergy proposed to base its Standard Service Offer (SSO) for the period beginning 2009 on the average price obtained in multiple auctions in 2008, so as to smooth out wholesale market price fluctuations. If the price increase for residential customers exceeded 15 per cent, the PUCO would have an option to phase in the increase over time. "Following the 2008 bidding process, multiple auctions would be held annually for one-third of the amount of the total amount of customer supply for a 36 month period, with resulting prices being averaged with existing prices to further insulate customers from volatility." 'FirstEnergy tries again on electricity transition plan', *The Energy Daily*, July 19, 2007. Also, 'First Energy: Utility's pricing plan generates criticism', *Toledo Blade*, July 11, 2007. PUCO Case 07-796-EL-ATA, Case 07-797-EL-AAM. NOPEC has filed for a hearing on FirstEnergy's proposal in order to explore the details including calculation of prices and the calculation of by-passable and avoidable costs, August 6, 2007.

<sup>66</sup> Columbia Gas of Ohio 38.1% residential, 42.0% small commercial; Cincinnati Gas & Electric (now Duke Energy) 7.9% and 15.8%; Dominion East Ohio Gas 47.4% and 48.7%; Vectren 29.8% and 21.0%. Source: *Retail Unbundling – Ohio*, Energy Information Administration at [www.eia.doe.gov](http://www.eia.doe.gov), citing PUCO.

Table 6 Switching Rates and Average Natural Gas Bills in 2004

Company	Average residential bill (10 mcf/mo) 15 June 2004	Residential customers with alternative suppliers Nov 2004	Average commercial bill (46 mcf/mo) 15 June 2004	Commercial customers with alternative suppliers Nov 2004
CGE/Duke	\$105.68	7.9%	\$500.32	15.8%
Col Gas Ohio	\$102.49	38.1%	\$541.39	42.0%
Vectren	\$98.36	29.8%	\$446.40	21.0%
Dominion E	\$93.88	47.4%	\$409.47	48.7%

Source: Average bills from Ohio Utility Rate Survey (see Table 5). Market share figures from Retail Unbundling – Ohio, Energy Information Administration at [www.eia.doe.gov](http://www.eia.doe.gov), citing the PUCO.

The PUCO was responsible for checking that each utility “has purchased its gas supplies at the lowest possible price”. The utility recovered these costs via a Gas Cost Recovery (GCR) component of the bill, set to recover the actual costs of the gas purchased. The law required that there be no markup or profit on the gas. The GCR was adjusted quarterly, later monthly, as gas purchasing costs changed.

In December 2004 Dominion East Ohio notified the PUCO of its desire to exit the commodity market and become a distribution-only company. It proposed a two-year pilot program whereby it would cease purchasing gas and put out to auction the provision of gas for customers that had not already switched to another supplier. The Gas Cost Recovery element would be replaced by a Standard Service Offer rate (SSO). The PUCO agreed. The first auction in August 2006 yielded an SSO equal to the NYMEX month-end gas settlement price plus \$1.44 per mcf (thousand cubic foot). This rate is announced monthly, two weeks ahead of implementation. This pilot program concludes in August 2008.

Retail competition in the Ohio gas sector is presently flourishing more than in electricity, at least in certain territories. The PUCO website lists 17 aggregators, 14 brokers, 27 marketers to residential and small commercial consumers, and 83 government aggregators (communities where aggregation has been approved). It lists offers from 2 to 9 active competitors in each of the four open territories.<sup>67</sup> Offers include fixed rate plans for 1 or 2 years, rates that are variable on a monthly or quarterly basis, capped rates, winter-summer variations, and so on. Minimum contract terms vary from monthly to two years.

Why has retail competition been more effective in gas than in electricity? There are several possible explanatory factors:

<sup>67</sup> The number of competitors listed in each of these territories are: Dominion 9 competitors, Duke 2, Columbia Gas 8, Vectren 2. Source: PUCO Apples to Apples comparisons.

- incumbent utilities generally bought in gas rather than supplied it from their own resources, so they had less interest in protecting their own gas supply than in protecting their own generation;
- utilities were prohibited from making a profit on gas purchases so it was more advantageous to concentrate on their gas distribution businesses and to participate in gas supply on a basis where it was possible to earn a competitive margin (that is, in other territories);
- the wholesale gas market in Ohio was more competitive than the wholesale electricity market, including from intrastate discoveries and local supply<sup>68</sup>, the less problematic transmission arrangements,<sup>69</sup> and the possibility of storage;
- the potentially competitive element in the gas supply chain accounts for a higher proportion of the typical final bill (about 80 per cent) than in electricity (about 50 per cent);
- more frequent wholesale gas price fluctuations meant that there were often times when marketers could offer gas at rates below those set by incumbents on the basis of earlier purchases;
- gas competitors may have fought for a greater share in the market in order to get a greater share of incumbent customers that might be allocated by the PUCO if Dominion East left the market; and
- gas production is not regulated by the PUCO nor did regulation hold the retail price of incumbents' gas below market levels.

## **18. Municipal aggregation in the Ohio gas sector**

Municipal aggregation in the gas sector was allowed by Amended Substitute House Bill 9 in March 2001, a little later than in electricity. The option has been taken up quite vigorously. 85 per cent of the communities that have approved municipal aggregation in electricity have also done so in gas (that is, 174 out of 204, plus one community where electricity aggregation failed).<sup>70</sup> In addition, some communities have approved gas aggregation that have not approved electricity aggregation.

However, municipal aggregation has not proceeded as easily in gas as in electricity. For example, NOPEC acknowledged in its 2005 report that “disappointment, on the other

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<sup>68</sup> “About 90 percent of the gas used in Ohio comes from the Gulf of Mexico region and approximately 10 percent comes from private wells within the state.” NEAAP. Gas drilling in Ohio is said to be widespread.

<sup>69</sup> “The OCC strongly supports a single electric market in Ohio (In the form of the Midwest RTO) and opposes AEP’s refusal to join a functional Regional Transmission Organization by the FERC deadline of December 15, 2001. The fragmented and uncoordinated approach to transmission pricing and access in Ohio is certainly a key factor in the lack of a regional market for electricity ...” NEAAP at <http://neapp.ncat.org/experts/ohio.htm>.

<sup>70</sup> Any local government such as a county, city or township may aggregate its residents and eligible businesses provided there is a choice program through the local utility. Currently electric choice programs exist in the territories of five electric utilities and four gas utilities. “However, if a natural gas utility company has 15,000 or more Ohio customers and does not have a choice program, a governmental aggregator may petition the PUCO to require the gas utility company to open its distribution system for the purpose of aggregation. Following the filing of a petition, the PUCO would hold a hearing to determine if opening the distribution system would be in the ‘public interest’. The burden of proof in that hearing would be on the governmental aggregator.” OCC, *Aggregation Process*.

hand, has dogged our efforts to jumpstart the NOPEC natural gas program”.<sup>71</sup> An unexpected rise in gas prices forced NOPEC to wait until September 2006 before signing a one-year deal.<sup>72</sup>

Wholesale price fluctuations are a real risk in practice: after hurricanes Katrina and Rita, wholesale gas spot prices trebled. The natural gas 12 month strip price, that might be relevant for a municipality considering a one-year aggregation deal, has fluctuated significantly quite apart from that: from a little over \$5/decatherm early in 2004 to nearly \$13 in September 2005, falling to \$7 by September 2006. In the single year April 2006 to April 2007 the strip price has ranged from over \$10 to under \$7, reaching \$9 on four separate occasions and falling to \$7 twice. Fluctuations of \$2 (about 25% of average price) within a month or two are not at all unusual.<sup>73</sup>

Such wholesale price fluctuations mean that municipal aggregation represents a significant political risk. Local politicians promising lower rates from municipal aggregation are at risk if the aggregation locks into high prices, so that they are criticised by voters when competitors are subsequently able to offer lower prices. Not all municipalities have been as cautious or well advised as NOPEC. In fact, it is said that, quite apart from its expertise, NOPEC provides political cover for municipal politicians (in the event of market prices falling below those negotiated as part of the municipal aggregation).

How best to cope with such fluctuating wholesale prices is a challenge for municipal aggregators. This is an even greater challenge where the standard offer price is itself set by auction. Under the previous arrangement with the Gas Cost Recovery (GCR) rate, customers in Standard Dominion East Ohio territory typically paid \$2.37 over monthly market prices.<sup>74</sup> Following the auction, they now pay NYMEX plus \$1.44. Competitors find it difficult to offer a significantly better mark up on a variable rate. Those customers wishing to have a fixed rate can take their pick of a variety of fixed rate offers for different periods from competing suppliers, as noted above. In contrast, municipal aggregation can effectively offer only one fixed rate for one fixed period, which may or may not turn out to be a good deal.

Furthermore, municipal aggregation needs to solicit an offer that may need to be kept open for all inhabitants for up to six months. In contrast, whenever an opportunity seems to offer itself, individual suppliers can purchase enough gas for, say, 2000 customers, and keep the offer open only as long as needed to cover that purchase.

This in turn raises a question about regulatory policy with respect to retail gas (and potentially electricity) competition. Phase one of Dominion’s present pilot program

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<sup>71</sup> NOPEC *Year-end Report 2005*.

<sup>72</sup> “The Board’s buying strategy, based on expert analysis, was to lock in a price this autumn [2005], when market experts uniformly predicted wholesale prices would drop. Instead, two devastating hurricanes [Katrina in August and Rita in September] tore through the Gulf of Mexico, sending prices soaring.” NOPEC *Year-end report 2005*. Also NOPEC *Press Release* 18 September 2006.

<sup>73</sup> I am grateful to Greg Slone for a graph of natural gas strip prices.

<sup>74</sup> OCC *News Release*, April 18 2007.

involves auctioning the provision of Standard Service. The second phase would envisage transferring those customers remaining on Standard Service to competing operators, so that the entire market would be with competitive providers. But if the auction yields the majority of competitive benefits, some would ask whether there is much to gain from moving to phase two? This is a similar issue to that of wholesale spot price pass-through once under consideration in the electricity sector in California and other states. I have elsewhere discussed the implications and problems of this approach (Littlechild, 2003).

## **19. Conclusions**

More than any other state or jurisdiction, Ohio has been the leader in opt-out municipal aggregation. After due process, a municipality can choose the electricity and gas supplier for all consumers in that municipality that do not choose to opt out. In the six years of its existence, this practice has experienced a roller coaster ride. Introduced in 2001, by 2003 municipal aggregation was responsible for 93 per cent of all electricity switching in the state. It was hailed as Ohio's success story and a model for others. But by 2005 aggregation was threatened with collapse and by 2007 it was said that this 'jewel of deregulation' had dissipated.

What can be learned from this experience? Three main conclusions suggest themselves.

First, opt-out municipal aggregation can work. Over 200 municipalities in Ohio, notably the Northeast Ohio Public Energy Council (NOPEC), have demonstrated that it is possible to put a proposal for opt-out aggregation to their electorate, get support, put municipal supply out to tender, and get a better price for electricity and/or gas supply than the standard price set by the incumbent utility and approved by the regulatory commission. The procedure is now standardised, professional advice and expertise are widely available, and the whole process can be completed in little over 12 months. Those involved credit both the Public Utilities Commission of Ohio (PUCO) and the Ohio Consumer Counsel (OCC) for helping to make municipal aggregation a success.

Second, municipal aggregation and retail competition generally have been seriously thwarted by the way in which the electricity deregulation law has been implemented in Ohio – or, some would say, not implemented. It might be argued that the present Rate Stabilization Plans have achieved retail prices so low that competitors cannot offer anything significantly better. However, incumbent electric utilities, with the encouragement or acceptance of the regulatory commission, have not been entirely innocent here. They are variously alleged to have deterred competition by keeping present prices artificially below market levels at the expense of future prices and wrongly allocating costs of the potentially competitive retail businesses to the monopolised network businesses; failed to put in place adequate ring-fencing arrangements; adopted anti-competitive tactics to discourage municipal aggregation; and secured an element of industrial consumer support for their proposals by means of unpublished side agreements. The Ohio Consumers' Counsel argues that retail competition "has never been given a fair chance" in Ohio. Surprisingly, both the Consumers' Counsel and NOPEC signed

agreements with a utility apparently supporting its Rate Stabilization Plan, though they are now very critical of the adverse impact of these Plans.

Third, both retail competition and municipal aggregation are at present more vigorous in the Ohio gas sector than in the electricity sector. For the most part this seems to reflect the less distorting retail price controls and other regulations in the gas sector. But the more volatile wholesale gas prices, and the decision to put Standard Service gas provision in one utility out to tender as a markup against the monthly NYMEX gas price, have presented a particular challenge. Municipal aggregation can hedge the economic risk by contracting ahead. But can it cope with the political risk? Can it deliver an indexed price that is significantly better than a standard offer derived from an auction, or a fixed price that will not be vulnerable to criticism if market prices fall below the level at which it is set?

It is thus still an open question how municipal aggregation would fare against individual choice in a regulatory framework that was more conducive to retail competition. Municipal aggregation presumably has to choose a variable price or a fixed price for a specified term, for all the inhabitants involved. It cannot match the variety, flexibility and responsiveness of the retail market as a whole. This brings political risks to those involved, and some would argue that municipalities should not be in a business like retail energy supply. On the other hand, some customers are undoubtedly sceptical of the retail energy markets and the privatised companies involved in it. And one should not underestimate the competitive advantage of an approach that can bring in large numbers of customers at a customer acquisition cost of about \$5 rather than \$50.

Municipal aggregation may therefore be able to reach certain parts of the market that other approaches cannot reach. It may provide some helpful reassurance in opening markets to competition, especially given the documented reluctance of some customers to switch supplier. It might thereby enable competition to substitute for regulation to a greater extent and more effectively than would otherwise be possible.

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