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North America Must Participate in Global LNG Market

Gary L. Hunt

With natural gas prices remaining at stubbornly high levels and domestic production stagnating in the face of projected US demand growth, exacerbated by reduced Canadian imports, the need for additional sources of gas has become very apparent. The 2005 hurricanes and resulting damage to Gulf of Mexico production pushed prices up even further. There are still some minor amounts of natural gas production in the Gulf of Mexico off line due to the unprecedented level of damage. However, higher earning potential from deep water drilling and demand for gas production in the Middle East means that rig counts in the Gulf of Mexico are down and likely to stay down, limiting the growth in domestic gas production. This set of circumstances brings added demand for liquefied natural gas (LNG) to close this gap.

Historically, most natural gas consumed in the United States came from indigenous Lower 48 production and pipeline imports from Canada. Mexico, although it has significant natural gas resource potential, has tended to be a net importer of natural gas from the United States and is expected to continue as such. For most of its history, the continental natural gas trade has existed largely without a global influence affecting market prices.

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Community Choice Aggregation Is a New Solution for Energy Markets

Howard V. Golub and Paul Fenn

In June 2007, the mayor of San Francisco announced that he had signed an ordinance to negotiate with energy suppliers to switch the city's residents and businesses from Pacific Gas and Electric to a competitive supplier and make the city 51 percent green-powered by 2017. Calling it "the largest municipal alternative energy program proposed in the United States to date," city leaders announced that a state law called Community Choice Aggregation (CCA) allows the city to undertake, as sponsoring Supervisor Tom Ammiano called it, "an ambitious effort to achieve no less than energy independence and renewable energy for the entire community."

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Other California communities are in various stages of analyzing or developing CCA programs.

THE CONCEPT

California, the nation's largest energy marketplace, is launching a new vehicle for delivering retail electric service, CCA. Assembly Bill 117, enacted in 2002,¹ directed the California Public Utilities Commission (CPUC) to establish implementing regulations, a process that took several years,² and CCA is now being analyzed or developed by various communities.

CCA permits California cities and counties to procure and sell electricity to residents and businesses and use the distribution facilities of investor-owned utilities (IOUs) to deliver the power to the community's retail customers.

Under CCA, the city³ becomes the commodity supplier and the IOU provides the transportation and billing services. The IOU is compensated for its services at rates established by the CPUC and relieved of the obligation to procure power for CCA's customers, freeing IOUs of that portion of vertically integrated utility service viewed as highest risk to the IOU. In addition, because California IOUs are facing rising incremental energy procurement costs, the IOU's remaining customers benefit when the city undertakes the procurement function. These factors may explain why California IOUs supported the enactment of AB 117.

CCA provides cities with valuable opportunities, of which reduced power costs to the community is only one. Local control over procurement choices is often as important as reduced energy costs. A city's control over procurement choices permits it to encourage a

preferred technology, such as a particular renewable technology attractive to the community, and/or stimulate generating units at locations advantageous to the community and/or procurement of renewable energy in excess of statutory Renewables Portfolio Standards. CCA also provides the opportunity for local control over energy efficiency programs and the deployment (locally) of public goods charges, a surcharge imposed by IOUs on all of their customers, but deployed over the IOUs' systems and not necessarily focused on the community originating the funds. Another advantage of local control is the ability to tailor rate design to the specific needs of the community. For example, a city might provide deeper discounts to low-income residents or offer economic development rates designed to assist particular economic development.

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CCA also presents the possibility of reduced electric rates. The economic fundamentals are attractive: a city's capital cost of financing a power project will be typically two-thirds that of an IOU. This reduction is primarily a function of the fact that cities finance using 100 percent municipal debt, whereas IOUs typically finance using 50 percent debt, which is slightly more expensive than municipal debt, and 50 percent equity, which is substantially more expensive than municipal debt. For capital-intensive projects, particularly renewable energy generation, this is a formidable advantage. There are also mechanisms to use municipal bonds to prepay for purchased power, using that method to reduce the cost.⁴ In addition, a city may have access to low-cost supplies, either already owned by it or from a supplier seeking a large instant market or an "anchor tenant" for a new power project.

STATUTORY AND REGULATORY FRAMEWORK

AB 117 established a relatively simple procedure for formation of CCA. Once a policy

decision is made, the city can implement CCA quite promptly. Moreover, two unusual provisions of AB 117 provide important advantages.

The statute requires the city to develop an Implementation Plan and present it at a noticed public hearing before adoption.⁵ The Implementation Plan must detail the process and consequences of aggregation and contain all of the following:⁶

- (A) An organizational structure of the program, its operations, and its funding
- (B) Rate setting and other costs to participants
- (C) Provisions for disclosure and due process in setting rates and allocating costs among participants
- (D) The methods for entering and terminating agreements with other entities
- (E) The rights and responsibilities of program participants, including, but not limited to, consumer protection procedures, credit issues, and shutoff procedures
- (F) Termination of the program
- (G) A description of the third parties that will be supplying electricity under the program, including, but not limited to, information about financial, technical, and operational capabilities

In addition to an Implementation Plan, a city must also prepare a "Statement of Intent," which shall provide for all of the following:⁷

- Universal access
- Reliability
- Equitable treatment of all classes of customers
- Any requirements established by state law or by the CPUC concerning aggregated service.

The decision to implement a CCA program must be made through an ordinance adopted by the "governing board."⁸

The Implementation Plan, Statement of Intent, and certain other information must be filed with the CPUC as part of a registration packet. The commission has 90 days to certify the packet.⁹ The commission does not have rate-making or other continuing authority over the CCA program.

AB 117 contains two substantive provisions that are particularly noteworthy. First, the

statute requires IOUs to “cooperate fully with any community choice aggregators that investigate, pursue or implement community choice aggregation programs.”¹⁰ Although there is one proceeding at the CPUC alleging noncompliance, at the minimum this section requires the timely and complete provision of information, including customer load data, by IOUs to a city considering or implementing a CCA program.

Second, the statute also affords a city with an extremely valuable marketing opportunity: upon implementation of a CCA program, all electricity consumers with the city—residential, commercial, and industrial—automatically become customers of the city unless the customer affirmatively acts to “opt out” of the CCA program and revert to the IOU.¹¹

TREND TOWARD COMMUNITY-BASED LOCAL DISTRIBUTION

While new to many, Community Choice was first adopted by Massachusetts¹² ten years ago as part of its electricity industry restructuring act, followed by Ohio,¹³ California, and New Jersey.¹⁴ In Ohio, CCA has been called the “poster child” for electric restructuring, with about 500,000 customers being served by CCAs. In March, the Ohio Office of Consumers’ Counsel called CCA “the jewel of deregulation,” and even now, Ohio Democratic Governor Ted Strickland’s proposed legislation to reregulate the state’s power sector would preserve and even expand CCA as a competitive option in an otherwise reregulated market. In Massachusetts, all of Cape Cod has been served electricity and energy efficiency services by the Cape Light Compact, a CCA formed at the turn of the century, a new CCA formed in Marlboro last summer, and a CCA is now forming in Worcester, west of Boston.

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In California, the local CCA process started in San Francisco as long ago as 1999, when

the Board of Supervisors approved a resolution asking for a CCA bill, which was sponsored by then-Assembly Member (now Senator) Carole Migden, becoming law in 2002.

With California not opting for a second try at deregulation, CCA is now the single form of competitive power supply in that massive market. With electric industry deregulation fading on the political horizon, CCA presents a unique new market structure for changing the way US consumers generate and consume energy. A new hybrid of municipal utility and deregulation, CCA is changing the basic paradigm of electricity as it has been defined in the past 50 years by pollinating traditional local control, municipal franchising, and municipal revenue bonds with public/private partnerships, competitive supply and third-party operations, and risk management.

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NEW PARADIGM(S)?

CCA presents several new paradigms to the power industry.

Unlike the deregulation versus reregulation debate, CCA is a uniquely bipartisan policy.

One is political. Unlike the deregulation versus reregulation debate, which pits Democrat against Republican more or less right down the aisle, CCA is a uniquely bipartisan policy at opposite poles of the political spectrum. Both pro-competition Republicans and public power-oriented Democrats have led the call for CCA laws. Former Federal Energy Regulatory Commissioner Nora Brownell, a Bush appointee, has recently called CCA “the only exception to the failure of deregulation in the United States.” In San Francisco, liberal Democratic Senator Carole Migden and San Francisco Supervisors Tom Ammiano and Ross Mirkarimi are its long-time political leaders.

Additionally, while Democrat-controlled legislatures in Massachusetts and California passed their state's CCA laws, Ohio's Republican-dominated legislature passed its CCA law in 1999. In Ohio, when Green Mountain Energy announced in 2001 that its power contract to serve half a million customers of the Northeast Ohio Public Energy Council (NOPEC), a CCA, would result in a 33 percent greenhouse gas reduction, the head of NOPEC, Dan DiLiberto, joked to the media that getting green power had been an accident: it just happened that a far greener competitive supplier had submitted the lowest rates and guaranteed a discount from the incumbent utility's coal and nuclear power portfolio.

However, the political uniqueness of CCA is only the tip of the iceberg. To the energy industry, CCA presents a potentially profound paradigm shift in terms of the market size and will offer significant opportunities to new business models and to new market entrants. For the reasons listed below, these opportunities are intriguing.

CCA presents a potentially profound paradigm shift in terms of the market size and will offer significant opportunities to new business models and to new market entrants.

First is *scale*. CCAs are immense compared to even the largest direct access customers (i.e., those that bypass the distribution companies and contract directly with generators). With a peak of 650 megawatts, San Francisco is larger than the largest contract approved under direct access, the University of California. The annual revenues from one CCA customer like San Francisco alone will be in excess of \$300 million, with a net present value of \$6 billion over the term of a 20-year contract.

Second is *commitment*. CCAs in California are seeking multidecade power purchase agreements in order to support revenue bonds to finance their supplier's portfolio. This kind of public/private partnership means that both the client (the city) and the supplier are making a deep commitment to stable rates and coinvestment.

Third is *public financing*. San Francisco has approved an open-ended bond issuance, which it intends to use to fund several hundred million dollars of the renewable energy component of its CCA program. Every potential CCA in the Bay Area is seeking to follow San Francisco's model of issuing revenue bonds to finance their respective renewable energy objectives. That provides an opportunity for suppliers to be involved in building renewable energy facilities, not just trading power.

A quick look at the current crop of California CCAs looking for suppliers is startling to uninitiated power marketers: a total peak demand of 3,200 megawatts and total annual energy consumption of 15,000 gigawatt-hours. Indeed, if all the announced CCA programs come to fruition, they would represent approximately 11 percent of current load for PG&E, SCE, and SDG&E combined, in one of the largest energy markets in the world.

The development of the CCA market will require suppliers to get actively involved in local and state public processes in order to be competitive and effective.

A market of this magnitude will not develop on its own. The development of the CCA market will require suppliers to get actively involved in local and state public processes in order to be competitive and effective. This will involve participation at the CPUC and even more critically, at the city and county levels. AB 117 and other CCA laws require a deliberative local process to prepare a CCA for implementation. San Francisco is a case in point: in 2005 after 40 hours of public hearings, the San Francisco Local Agency Formation Commission recommended a draft CCA Implementation Plan for adoption. The city formed a CCA Task Force in 2006, which held a dozen meetings, followed by another dozen mayor's office meetings, and multiple Board of Supervisors meetings and hearings before the Implementation Plan was approved in June 2006.

NEW PRODUCT REQUESTED

While conventional wisdom previously assumed that consumers in deregulated markets

are primarily price-driven, California's post-energy crisis framework has many leading CCAs emphasizing other criteria for suppliers to target. San Francisco provides a good example. It will require its supplier to "meet or beat" the incumbent IOU's rates while committing to a far greener portfolio, including a \$1.2 billion roll-out of local and regional renewable resources and demand technologies, including a 150-megawatt wind farm, and (within city boundaries) 107 megawatts of energy efficiency and conservation, 72 megawatts of renewable distributed generation, and at least 31 megawatts of solar photovoltaics. The objective is a 51 percent renewable portfolio by 2017.

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The San Francisco model has been adopted in a recently completed CCA business plan prepared for an East Bay Joint Powers Agency that includes Oakland, Berkeley, and Emeryville. Also, in Marin County, a CCA business plan sets a 51 percent renewables portfolio by 2017. In neighboring Sonoma County, a recently completed Community Climate Action Plan funded by area municipalities would use CCA and energy bonds in conjunction with bold green transportation fuels and infrastructure to achieve a 20 percent across-the-board greenhouse gas reduction by 2015. None of these CCAs are requiring a discount, but all want more stable, competitive rates with major green power development components embedded in the deal.

OBJECTIVE CONDITIONS

With the energy crisis converting many consumers (including large industrial and commercial consumers) from wanting cheaper power to wanting protection against increasing market volatility, recent widespread public acceptance of a climate crisis lends urgency to CCA programs. The IOUs have followed (sluggishly¹⁵) the public mandate to deliver a solution, yet on the other hand straight deregulation has failed to deliver meaningful greening or even a signifi-

cant degree of competition. CCA offers many answers to many of these problems.

HOW CCA MIGHT WORK BETTER

For competitive power markets, CCA offers leverage on every major failure of deregulation. Where under deregulation, high marketing costs have blocked true retail competition, CCA suppliers have minimal marketing costs because CCA ratepayers are included in the aggregation unless they opt out. Whereas direct access suppliers suffer from exposure to high customer churn and are limited to relatively short-term contracts, under CCA churn can be limited by opt-out penalties and multiyear contracts. Moreover, cities and counties are creditworthy parties with significant capacity to issue bonds. More importantly, CCA programs are built on local consensus. For all the reasons why pluralistic, democratic societies—with all their perceived drawbacks—have consistently outperformed centralized, autocratic societies, CCA holds the promise of better serving the energy needs of the market that they serve. □

NOTES

1. Codified at California Public Utilities Code Sections 218.3, 331.1, 366, 366.2, 381.1, 394, and 394.25.
2. See California Public Utilities Commission Decision 04-12-046 (12/16/04), Decision 05-12-041 (12/15/05), Decision 06-07-030 (7/20/06), and Decision 07-01-025 (1/25/07).
3. Under AB 117, CCA may be elected by cities, counties, and combinations thereof. For convenience, we will simply refer to "city" or "cities."
4. In late 2003, the IRS adopted regulations permitting prepayments for gas or electricity to be financed with tax-exempt bonds. The city of Memphis, first to act under the new regulations, entered into a 15-year prepaid electricity purchase agreement, reportedly saving Memphis \$225 million.
5. Public Utilities Code § 366.2(c)(10)(A).
6. Public Utilities Code § 366.2(c)(3).
7. Public Utilities Code § 336.2(c)(4).
8. Public Utilities Code § 366.2(c)(10)(A). This would be a city council or county board of supervisors.
9. Public Utilities Code § 366.2(c)(7).
10. Public Utilities Code § 366.2(c)(9).
11. Public Utilities Code § 366.2(c)(2).
12. Chapter 164 of 1997, Section 247.
13. Senate Bill 3, Section 4928.20.
14. Assembly Bill No. 2165, now Chapter 24 of 2003.
15. Pacific Gas and Electric Co. has recently announced that it will not even achieve the statutory mandate of 20 percent renewables by 2011.