

LEGAL AND REGULATORY ISSUES
FOR ONSITE FUEL CELL PLANNING
BY GAS UTILITIES



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First Phase Report
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EXECUTIVE SUMMARY

This report discusses legal and regulatory considerations affecting gas utility planning for onsite fuel cell cogeneration programs. It is based on research sponsored by the Gas Research Institute and conducted during late 1983 and early 1984 by John Nimmons & Associates, a San Francisco area energy law and consulting group.

Onsite Fuel Cell Activities and Business Structures. Gas utilities today can consider engaging in any of a wide range of activities related to onsite fuel cells, through a variety of possible business structures. These activities can range from minimal utility participation such as fuel cell advertising and promotion, to more active involvement through merchandising or equipment leasing and operation, to a broad-based commitment to provide total fuel cell energy services. Business structures available to pursue these activities can range from complete integration of the fuel cell enterprise within the regulated utility structure, to segregation of fuel cell activities in unregulated subsidiaries or affiliates, to total separation of fuel cell ventures from conventional public utility functions through customer or third-party development.

Generally speaking, both risks and potential rewards are likely to increase as fuel cell commitments increase along the spectrum of activities outlined. Since individual utility circumstances vary widely, no single service configuration or business structure will be universally appropriate or desirable. Choices among them will depend on each utility's overall strategic objectives and its financial and market constraints, and on its assessment of the legal and regulatory landscape outlined here.

Basic Legal and Regulatory Framework. Prominent features of that landscape include the federal Public Utility Regulatory Policies Act of 1978 ("PURPA"); state laws and commission practices defining the conditions for regulatory jurisdiction and the nature of its exercise; and the federal Public Utility Holding Company Act of 1935 ("PUHCA").

PURPA. PURPA established major financial and regulatory incentives for cogeneration by entities other than conventional electric utilities. These incentives take two forms. First, PURPA requires electric utilities to offer to buy power from qualifying cogeneration facilities -- including onsite fuel cell facilities -- at potentially attractive rates. Second, the Act directs the Federal Energy Regulatory Commission ("FERC") to make rules exempting qualifying cogenerators from most state and federal utility regulation which would otherwise govern wholesale power sales to the grid.

By ensuring a market for their electric output, PURPA permits far more flexible sizing of onsite fuel cell facilities and a wider range of cost-effective applications. Where these extend beyond industrial applications to commercial and residential settings, PURPA creates a valuable premium for fuel cell characteristics such as modularity, low pollutant emissions, high efficiencies and silent, unattended operation. PURPA and FERC rules permit straight gas utilities and some gas utility holding companies to take advantage of these benefits directly through ownership of up to 100% equity interests in qualifying cogeneration facilities (although they limit combination utilities to 50% ownership). In addition, gas utilities can benefit indirectly through increased sales of gas and/or services to others who own or operate such facilities.

The U.S. Supreme Court has recently upheld PURPA and FERC's implementing regulations against two major challenges. In one case, the Court confirmed PURPA's constitutionality against a claim that it encroached on state sovereignty over utility affairs. In the other, the Court sustained critical portions of FERC's regulations that require electric utilities to interconnect with cogenerators and to buy their power at the utility's "full avoided cost" (the highest cost the utility would otherwise incur for power at the margin). Court challenges continue to surface, but should not affect PURPA's basic power purchase and exemption scheme (although they may affect some state "mini-PURPA" legislation and some state commission implementation efforts).

State Utility Laws and Commission Practices. PURPA superimposes a new body of law over traditional state utility law and regulatory practices. However, these remain very much intact and will affect gas utility fuel cell planning in critical ways. Among other things, state laws and practices will determine whether, under what conditions, and to what extent certain fuel cell activities will be regulated directly as public utility functions, or indirectly through the commission's general authority over utilities or its supervision of their relations with subsidiaries or affiliates.

The impact of state laws and commission practices will depend on the types of fuel cell activities gas utilities pursue and the structures they choose for those activities. For example, capital-constrained utilities or utilities committed to other investments might decide to limit their early fuel cell activities to promotional or merchandising functions. They would normally consider integrating these activities into their regulated operations so that their costs could be recovered through rates. The issues that arise here are largely internal to the regulatory process, and center around whether and to what extent commissions will consider such costs in setting rates.

Most commissions limit or exclude expenses and revenues related to general promotional advertising or conventional appliance merchandising, but an increasing number include the costs of programs to encourage energy efficiency and conservation, and some have approved special promotional gas rates for cogeneration. The task here is for utilities to distinguish fuel cell promotional efforts from more traditional advertising or merchandising activities by educating regulators in the efficiency and environmental benefits of fuel cell technology.

Gas utilities in a position to consider substantial commitments to supplying fuel cells and related services as a means of diversifying will want to consider not only promotion and merchandising activities, but also certain ownership and service options further along the spectrum referred to earlier. These options raise a much broader and more novel set of issues under state utility laws, as well as under the Public Utility Holding Company Act.

This is because onsite fuel cells differ from most appliances and equipment that gas utilities sell or promote in that they produce electric and heat outputs whose distribution and sale are independently subject to direct regulation under many states' utility laws, whether undertaken by existing utilities or others. These laws and judicial opinions interpreting them typically define the types of commodities (electricity, gas, heat, water, etc.); the types of activities (production, generation, transmission, distribution, sale, etc.); the nature of the interests (ownership, operation, management, control, etc.); and the scope of service ("to or for the public") which will subject suppliers to public utility regulation.

State laws in this area are generally similar, but individual variations in statutory coverage and relevant court interpretations can be critical. Where a utility is considering structuring or participating in unregulated fuel cell ventures, these matters must be thoroughly understood in relation to the specific fuel cell activities contemplated.

Where these activities do fall within the scope of basic state public utility definitions, various exemptions from regulation may be available. PURPA exempts qualifying cogeneration facilities from most state and federal regulation as to wholesale electricity sales to the grid, but retail electric sales and all heat sales continue to be governed by state laws. State laws in turn may provide exemptions for certain situations involving 1) limited distribution; 2) "self-regulated" entities such as municipalities and cooperatives; and 3) cogeneration and alternative energy production.

Where they are available, these cogeneration exemptions are likely to be broader than other exemptions and more tailored to the specific needs of cogenerators. However, not all states have adopted them, and in the states which have, their scope varies considerably. Some of these exemptions exclude conventional public utilities from their benefits; many do not cover all cogeneration configurations of interest to utilities. This new area of the law continues to develop, and gas utilities willing to take the initiative have real opportunities here to educate legislators and regulators to support fuel cell incentives benefitting investors, ratepayers and the general public alike.

Where fuel cell activities are not subject to direct regulation as "public utility" functions, gas utilities may consider separating them from conventional utility activities through corporate subsidiaries or affiliates to seek higher investment returns than regulators allow on their public service activities. However, utilities considering such ventures must also consider indirect methods by which regulators can affect the achievement of these strategic objectives for diversification. At the state commission level, these include regulation of gas and electric prices; possible appropriation of venture earnings and reallocation of costs through the ratemaking process; control over utility investments in non-traditional areas; and supervision of contracts and other arrangements with affiliated interests. At the federal level, they may also include considerations arising under the Public Utility Holding Company Act of 1935.

One key element of the regulatory process which seldom arises in day-to-day utility operations can directly affect the success of onsite fuel cell programs. This is commission control of market entry through the issuance of certificates of public convenience and necessity or other authority to oversee competition among suppliers of utility services. Where commissions have such authority, applicants to provide new services may have to show, among other things, that their proposed services are needed and will not duplicate existing services (including electric services furnished by existing utilities and heating services furnished by others).

These requirements may apply to gas utilities seeking to add fuel cell services of various kinds to the services they already provide, since their existing certificates may not be broad enough to cover the new services. New entrants (including gas utilities) which propose to offer services identical to existing services offered by others typically must demonstrate that the existing services are inadequate. However, strong arguments can be made that onsite fuel cell services are not "identical" to other services with which they are likely compete, and that in any event existing services are "inadequate" to provide the combination of services that fuel cells will provide. In addition, onsite fuel cells promote important public interests that utility commissions are charged with overseeing. Properly presented, this can bolster the case for allowing fuel cell competition.

PUHCA. In addition to state laws, the Public Utility Holding Company Act of 1935 limits gas utility freedom to diversify into operations other than traditional public service functions. These limits are most stringent with respect to registered gas utility holding companies (currently including Columbia Gas System, National Fuel Gas Company and Consolidated Natural Gas Company). As to these companies, the Securities and Exchange Commission ("SEC") has stated that the acquisition of interests in cogeneration facilities is generally impermissible because these facilities are not "functionally related" to their public utility business as required by PUHCA and prior SEC rulings. H.R. 4467, introduced in Congress late in 1983, would effectively overturn that determination, but remains dormant at this writing.

On the other hand, the SEC and FERC have clearly indicated that gas utility holding companies exempt from registration under PUHCA can acquire cogeneration interests, since PURPA §210(e) and FERC rules exempt them from PUHCA's other requirements to this extent. The same provisions insulate gas utilities which are not presently holding companies from becoming holding companies subject to PUHCA by reason of acquiring cogeneration interests.

I. INTRODUCTION

This report examines legal and regulatory considerations likely to shape gas utility entry into commercial markets for onsite fuel cells. It presents the results of research performed for the Gas Research Institute ("GRI") in late 1983 and early 1984 by John Nimmons & Associates, a San Francisco area firm providing legal and professional services in the areas of alternative energy development, utility regulation and energy policy.

The research described here is exploratory. It represents the initial phase of a larger ongoing effort to identify and define critical legal, regulatory and institutional issues affecting the form and structure of gas utility participation in emerging markets for onsite fuel cell cogeneration. This work is intended to provide a data base for GRI and basic guidance for gas utility business decisions in this largely uncharted area — an area of vital interest to gas utilities operating in increasingly competitive energy markets under rapidly changing regulatory conditions.

The overall research purpose is not simply to identify possible barriers or impediments to participation. It is equally to uncover legal and regulatory opportunities for successful gas utility-sponsored onsite cogeneration programs. It is to help define non-technological risks gas utilities may encounter in this area; to consider avenues for mitigating those risks; and to focus early attention on areas where legislative or regulatory reform can help gas utilities and their ratepayers realize the full promise of fuel cell efficiency and environmental benefits.

The intent of this initial research phase has been to proceed beyond the general recognition by GRI and its member utilities that legal and regulatory factors will affect utility onsite fuel cell activities, to identify and describe specific areas of federal, state and local law likely to influence utility planning decisions concerning the nature and scope of these activities. Our strategy has been to survey a wide range of issues of

potential interest to gas utilities generally, rather than to concentrate in depth on particular issues that any single utility might face. Our objective here is to describe the broad "lay of the land" that utilities will encounter in this area, rather than to analyze or recommend courses of action for individual utilities.

This report is not intended to provide the kind of focused legal and regulatory advice that each utility will need from its own counsel and regulatory staff to evaluate its individual circumstances, and of course should not be relied on for that purpose. The report is intended to highlight emerging issues in utility-sponsored onsite cogeneration, to stimulate further inquiry by interested utilities, and to develop a data base that will help direct GRI's continuing research in this area toward subjects of greatest use and benefit to its member utilities and their ratepayers.