STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 05-M-0090 – In the Matter of the System Benefits Charge III

COMMENTS OF THE UNITED STATES COMBINED HEAT AND POWER ASSOCIATION

Introduction. Pursuant to the Commission's Notice Soliciting Comments, issued January 28, 2005, the United States Combined Heat and Power Association ("USCHPA") is pleased to submit its comments on the continuation of the System Benefits Charge ("SBC") program. The USCHPA is a private, non-profit industry association based in Washington, D.C., organized in 1999 to promote the benefits of combined heat and power ("CHP") and policies recognizing those benefits and encouraging the implementation of high-efficiency, low-emission CHP in applications in industrial, commercial, and even residential settings.

The USCHPA is pleased to provide in these comments a strong endorsement of the effectiveness and importance of the application of SBC funding to CHP projects and efforts in New York. By itself, New York's program, supervised by the New York State Energy Research and Development Authority ("NYSERDA"), has vaulted New York into a preeminent place, offering a market and regulatory environment conducive to high-efficiency CHP unsurpassed in the rest of the United States. USCHPA strongly urges the Commission to renew and indeed strengthen the commitment of SBC funding to these

programs, because the market does not and indeed cannot provide adequate recognition of the value CHP projects creates for the public benefit.

Why the Competitive Market does not Adequately Induce CHP. In its work, the USCHPA has frequently noted thirteen separate benefits that are derived from the use of CHP:

1. A dramatic improvement in fuel economy (and thus a proportionate cut in effective fuel costs), increasing net energy efficiency from a system average of 30% or less to system efficiencies typically exceeding 75%.

2. Improvement in power quality and reliability by virtue of being sited directly at the electric load, downstream of the constraints and incidents, natural and man-made, that make the grid increasingly unreliable.

3. Improvement in energy cost predictability by allowing known capital costs and longer-term fuel purchases to substitute for highly volatile utility energy costs.

4. Reduced emissions in proportion to the reduction in energy use per unit of useful energy products in the form of electricity and thermal energy, leading the Environmental Protection Agency and other environmental regulators to see CHP as a leading answer to the challenge of increasing energy availability to our economy while decreasing emissions.

5. Reduced congestion on the electric power grid, woefully underinvested over recent years, and prone to excessive demands at peak periods, as a function of CHP sited downstream from the congestion, removing load from the wires and opening them to growth or better service to other users.

6. Improved power availability to the economy and freed-up grid capacity at no cost to ratepayers, as a function of wholly private investment made in CHP, effectively creating ratepayer value by deferring the need for new generation or transmission and distribution investments.

7. Reduced electric system vulnerability to disruption by intent through the dispersion of power sources throughout the economy and in places where they are surrounded by other functions and cannot readily be targeted with any broad impacts, plus their potential ability to provide power for critical needs in their locales if the central grid were disrupted.

8. The ability to respond to growing electric power demand with small-increment, short-lead-time investments in capacity that can help smooth the lumpiness of central power generation and major transmission lines, using off-the-shelf often modular technologies.

9. The reduced land-use impacts that result from the avoidance of new central power plant footprints and especially the highly controversial new transmission corridors, avoiding regulatory delays and defensive political pressure on utilities, siting agencies, and regulators by outraged landowners.

10. Elimination of the line losses from power transmission, averaging 10% of power on a national basis, and exceeding 20% on congested lines during peak periods, as a result of siting generation at the load.

11. Optimization of scarce natural gas resources and infrastructure as a result of CHP's ability to get twice to three times the useful output from the same amount of natural gas, compared to conventional power and thermal energy systems, and often to do so where gas infrastructure is already in place for thermal purposes alone.

12. Promotion of a new high-tech manufacturing sector in the U.S. economy, with significant potential to support a new export industry as the developing world bypasses central generation to seek decentralized energy, allowing the achievement of ever greater economies of scale and cost reductions in the home market as well.

13. Support for a competitive power industry via the creation of literally thousands of potential power suppliers to the grid without any incentive to manipulate markets as they must first serve their own thermal requirements.

While USCHPA believes that these thirteen benefits are all valid and worthy, the key point is this: **only the first three of the thirteen accrue to the CHP project's owner. The other ten are public benefits that the development of CHP creates, but at present they add no value to the feasibility of the CHP project from the perspective of the owner.** The competitive market cannot recognize these benefits because they are externalities that are non-monetary to the CHP project developer.

USCHPA believes that the achievement of these ten public benefits readily warrants the modest public expenditures represented in such programs as the SBC program. Without such programs as the SBC program, many CHP projects that would achieve benefits worth vastly more than their costs will not be constructed because those benefits are not expressed in any manner that provides incentive to proceed with such CHP projects.

Even with the SBC program, which by its nature is intended to target innovative projects and must be highly selective, the public interest is receiving only a tiny fraction of the benefits that could be available from the wider application of this technology. But the SBC program serves an absolutely critical function of "priming the pump," providing critical initial support for bellwether projects that can help demonstrate the public benefits, encourage similar wholly private investments, and prove the technical and practical feasibility of model projects.

Experience with the Administration of the SBC. USCHPA is pleased to state that its experience with the management of the SBC funds through NYSERDA has been uniformly positive. Although funding limits have necessarily prevented all valid submissions from receiving funding, the judicious selection of those projects funded is apparent, and is clearly driven by a determination of which are likely to have the broadest impact on the market or the greatest value in facing up to key technical challenges or market barriers.

USCHPA has been told by New York City's own energy staff that, in large measure because of demonstrations funded through NYSERDA from SBC funds, there are effectively no new New York office towers that are being planned without their own CHP systems. USCHPA respectfully submits that if the **only** benefit achieved by this program had been this significant change, increasing power reliability, protection of human needs and critical functions, and the ability of New York City to withstand breakdowns in the central grid that this will over time accomplish, these funds would have been well spent. Compared solely to the costs imposed on electric ratepayers, land use impacts, and time requirements for expanding transmission and distribution into New York City to achieve the same new capacity and reliability, without accounting for the necessary upstream increases in generating capacity, these CHP projects are a bargain for New York's ratepayers whose modest SBC contributions prompted private investors to commit much larger sums.

Similarly successful examples of innovative uses of fuel cells and more conventional prime mover technology are on the long list of NYSERDA-selected projects that received SBC funding.

On the basis of USCHPA's extensive, albeit indirect, experience with the management and outcomes of the SBC expenditures by NYSERDA, USCHPA would highly recommend that NYSERDA and its expert staff be retained to provide program management into the future.

Recommendations. USCHPA believes that the SBC concept, which has exclusively been applied through electric utility charges for electric-related programs, ought to be adopted and applied on the natural gas utility side. As natural gas supplies are increasingly constrained at the source while demand increases, largely from prior commitments to gas-fired power generation, and price volatility make energy budgeting a nightmare for consumers in New York and elsewhere, there is much room to use the SBC mechanism to seek similar innovations, similar promotion of replicable, cutting-edge projects that can husband existing supplies, draw more value from gas that is consumed, and explore alternatives.

Because most CHP applications utilize natural gas, but do so with much greater effectiveness than simple-cycle gas-fired generation or even combined-cycle generators, USCHPA obviously believes that a well-run SBC program on the natural gas side of utility services will also tend to provide great support for new CHP applications. In Europe, full page advertisements offer homeowners their own residential CHP units; in the United States, even in New York, this is virtually unheard of. USCHPA believes that when a homeowner's gas-fired furnace is old and ready for replacement, a new one that also generates a significant part of the homeowner's electricity requirements, and can serve in an emergency to maintain critical systems, ought to be an option. Currently, it is not an option. This is only one of the many possible applications that could be judiciously seeded with a relatively modest amount of SBC funding.

Conclusion. In conclusion, the U.S. Combined Heat and Power Association congratulates the State of New York on a well-managed and effective program that has leveraged the available System Benefits Charge funds in a manner that – at least as applied to CHP applications – has gained New York's ratepayers a prospective return in public benefits and a brighter energy future worth many times that investment. The program should be extended and expanded to include natural gas.

Respectfully submitted,

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