

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on October 27, 2005

COMMISSIONERS PRESENT:

William M. Flynn, Chairman
Thomas J. Dunleavy
Leonard A. Weiss
Neal N. Galvin
Patricia L. Acampora

CASE 03-E-0188 – Proceeding on Motion of the Commission Regarding a Retail
Renewable Portfolio Standard.

ORDER APPROVING REQUEST FOR INCLUSION OF
METHANE DIGESTER SYSTEMS AS ELIGIBLE TECHNOLOGIES
IN THE CUSTOMER-SITED TIER

(Issued and Effective November 2, 2005)

BY THE COMMISSION:

INTRODUCTION

By Order issued April 14, 2005 (April Order), the Public Service Commission approved measures to implement the Renewable Portfolio Standard (RPS) Program.¹ One of those measures established a process to include additional emerging technologies, along with wind, fuel cells, and photovoltaics, as eligible Customer-Sited Tier resources.

¹ Case 03-E-0188, Retail Renewable Portfolio Standard, Order Approving Implementation Plan, Adopting Clarifications, and Modifying the Environmental Disclosure Program (issued April 15, 2005). We approved the RPS Program previously in Case 03-E-0188, supra, Order Regarding Retail Renewable Portfolio Standard (issued September 24, 2004) (September Order).

On June 29, 2005, the New York Farm Bureau (NYFB) filed a petition seeking inclusion of methane digester systems in the Customer-Sited Tier so that a large number of small, family-run businesses in the New York State dairy farming industry would be able to participate in the RPS Program. The NYFB explained that, although biogas digesters, including methane digesters, are eligible to participate in Main-Tier procurements, the number of cows required to produce enough manure to meet the effective Main-Tier minimum generating capacity of one megawatt (MW),² and the expense of aggregating manure from an array of farms, exclude all but a few of New York's largest industrial dairy farms from participating in the RPS Program. We grant the petition because we agree with the NYFB that increasing the number of anaerobic digestion systems could help New York achieve its RPS Program goals and would have a positive impact on the environment and economic viability of New York's rural dairy farming communities.

BACKGROUND

In the September Order, we created the Customer-Sited Tier to support technologies that could “play a role in diversifying the state’s energy mix and stimulating economic development opportunities in the state.”³ We explained that Customer-Sited Tier funding decisions would be based on each technology’s detailed cost-benefit analysis (i.e., in-state job creation or retention) and the technology’s ability to support load pockets, decrease peak demand on the grid, provide greater fuel diversity, offer

² We currently require Main Tier generators to bid in the wholesale energy spot market, which has a threshold minimum bid level of one MW. We expect to revisit this requirement in the near future.

³ September Order, p. 47.

opportunities for residential and small business consumers to participate, and provide environmental benefits.⁴

We allocated in the September Order a two percent set aside of the total RPS Program's megawatt hour (MWh) incremental level for emerging, but not yet cost competitive, electricity generating technologies and resources eligible for Customer-Sited Tier funding. In addition, we set eligibility requirements for RPS Program support in the Main Tier and the Customer-Sited Tier. We determined that methane digester systems met the eligibility requirements for participation in Main-Tier procurements.⁵

In the April Order, we approved a process for establishing the eligibility of additional technologies for RPS Program support in the Main-Tier and the Customer-Sited Tier. Regarding the criteria for eligibility that were to be addressed in any petition requesting the inclusion of a new technology, the April Order listed “the origin and composition of the generation fuel, the nature of the process transforming that fuel into electricity, the totality of the environmental and other impacts of the generation process, such as air emissions and waste products, the degree of development of the technology...and the probable cost of providing RPS Program support for the technology.”⁶

Notice of this matter pursuant to the State Administrative Procedure Act (SAPA) was published in the State Register on July 27, 2005. The NYFB, Saratoga Biogas LLC (Saratoga), and Microenergy, Inc. (Microenergy) filed comments within the 45-day comment period, which ended on September 10, 2005.

⁴ Id.

⁵ September Order, Appendix B.

⁶ April Order, p. 33.

NYFB PETITION

The NYFB states in its petition that inclusion of methane digester systems among the eligible technologies in the Customer-Sited Tier would better achieve the goals of the RPS Program and would have positive effects on the environment and on the farming communities of rural New York State. These goals include supporting the development of emerging electricity generating technologies and resources through the diversification of fuel sources.

According to the petition, eligibility in the Main Tier is acceptable for the State's few largest dairy farms, but is practically and economically unfeasible for the majority of New York's small, family-run dairy farms that only have enough cows to produce methane to generate less than one quarter of the required minimum electricity to participate in Main Tier procurements. Customer-Sited Tier eligibility would enable broader-based RPS Program participation in the development of an emerging technology, the petition continues. Further, methane digesters would reduce peak grid demand, help sustain the State's dairy industry by allowing farmers to better use their resources and diversify income from their farms, preserve open, working landscapes, and help environmental efforts to protect water and air quality.

COMMENTS

In their respective comments, the NYFB, Saratoga, and Microenergy each emphasized two issues: (1) the greater alignment with RPS Program goals that would be achieved by including more small, family-run dairy farms in the Customer-Sited Tier; and, (2) the potential for increased generation capacity of biogas systems if a methane-food waste mix of fuel is used in the digester systems.

Microenergy, a developer of anaerobic digestion systems that constructs, designs and operates renewable energy systems for dairy farms, supports the NYFB's application because, it explains, a number of New York systems now under consideration for development would not generate enough electricity to participate in the Main Tier. Microenergy states that inclusion of methane digesters in the Customer-Sited Tier would be an effective mechanism for making anaerobic digestion systems more feasible on a

larger number of New York farms, as well as help achieve RPS Program goals and attain the benefits outlined in the NYFB's application.

Saratoga states that it has successfully designed and installed approximately 2500 to 3000 biogas systems on European farms. It explains that the key to the success of these systems is the availability of appropriate market incentives to encourage renewable energy production. Saratoga asserts that, if methane digesters were included in the Customer-Sited Tier, the number of systems installed in New York would increase significantly and would yield the benefits stated in the NYFB's petition. Saratoga also suggests that we adopt the German model of base rates pegged to kW generation levels, with bonuses paid based on the mix of fuel usage, because in Germany, it asserts, higher RPS incentives encourage the adoption of the technology on small farms. Saratoga asks us to include all biogas fermenting systems, not only methane digesters, because the diverse fuel mix of manure, crops and food waste increases the generating capacity of installed systems. It further requests that we consider not limiting use of these systems to farm locations.

The NYFB asserts that there is a disconnect between the RPS Program's purpose of supporting the development of technologies to increase production of renewable energy and the limited access to program support given the high manure fuel requirements for RPS Program incentives for the Main-Tier. In addition to the replacement of electricity generated from non-renewable sources, the NYFB emphasizes the environmental benefits of decreased odiferous emissions and water safety due to increased digester demand for manure. The NYFB also notes the economic benefit of supporting new captive resource-based, income producing opportunities for New York's agricultural industry.

DISCUSSION

The NYFB requests us to include methane digester systems among the technologies than are eligible for Customer-Sited Tier resources under the RPS Program to help achieve our renewable energy generation growth and our environmental goals, as well as to support the economic interests of an important state industry. The NYFB's

arguments supporting its application for the inclusion of methane digesters in the Customer-Tier are sound. We also agree with Saratoga that installation of anaerobic digestion systems should not be limited necessarily to farm locations.⁷ Maximum, cost-effective systems can only be installed in a market that has broad-based acceptance and adoption of the renewable energy technology. Infrequent installations will not attract developmental expertise or lead to declining costs. Water safety and air quality goals of federal and state nutrient management regulations would be more easily met when the required seasonal storage (versus contemporaneous spreading) of manure is diminished as a result of constant digester demand. In addition, open landscapes will be preserved, and a taxable industry maintained, as a valuable agricultural industry group has the potential to increase operating net income by installing subsidized digesters.

Currently, anaerobic digestion systems are eligible for Main-Tier incentives. Although large scale digesters are examples of a cost efficient, renewable energy technology, the growth in implementation of the technology on a farm-by-farm basis is limited to very few, very large dairy farm operations. We agree that it is unlikely, except in unusual circumstances, that a co-operative effort to fuel larger scale digestion systems by a group of smaller dairy farmers would be economically feasible due to the expense of aggregating and hauling manure to a central digester.

A main purpose of the RPS Program is to foster growth in the development, adoption and implementation of renewable energy technologies and resources that will be cost-effective over time. Costs of anaerobic digestion system design and installation will decrease if incentives induce early adopters to develop and use the technology and if incentives enable system developers to see on-going demand from broader-based market participation. Whereas New York has very few operating digesters, small biogas digesters have been embraced by the European farming community. Given that the New

⁷ More experience and information is needed before we will address the additional requests of Saratoga.

York State dairy farming community is predominantly a market of small, family-run businesses, each with fewer than 2,000 cows, the NYFB is correct that anaerobic digestion development should be focused on this broad base of potential users by designing and installing generators with appropriately-sized capacities, and these projects should be eligible for small business development support under the Customer-Sited Tier of the RPS Program.

Ancillary benefits of this approach are considered as well. Increased manure demand by digesters would limit the emissions problems (e.g., seepage of phosphorus and nitrogen into water systems) caused by seasonal spreading and storage of manure. In addition, methane digesters use ordinarily available farm resources, enabling farms to operate more efficiently. The cost savings will help farming families achieve financial stability and encourage them to keep working the land, thereby preserving farmlands and open space.

CONCLUSION

Anaerobic digestion technology satisfies the criteria for inclusion in the Customer-Sited Tier. Adding this emerging technology will expand its use beyond large scale dairy operations to smaller, family-owned operations, leading to cost efficiency and greater adoption through economies of scale. This will benefit small farms and the New York economy. In addition, use of this technology will help the RPS Program attain its objectives.

The Commission orders:

1. The petition of the New York Farm Bureau is granted: digestion systems are added to the list of eligible Customer-Sited Tier resources, in accordance with the discussion in the body of this Order.

2. This proceeding is continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING
Secretary