

Proposal Concerning Modifications to LIPA's Tariff for Electric Service

Requested Action:

LIPA staff proposes revisions to the Tariff for Electric Service to expand net metering to be consistent with recently legislated changes to the NY Public Service Law. Specifically, staff proposes that the tariff be revised as follows:

A) Modifications to Net Metering Eligibility

- (1) to allow non-residential customers to install up to 2,000 kW of solar or wind electric generation from the current criteria which limits the size to the lower of the customer's peak load as measured over the previous twelve (12) months or 2,000 kW; and
- (2) to allow net metering for a residential micro-combined-heat-and-power (micro-CHP) or fuel cell customer-generator up to 10 kW; and
- (3) to allow net metering for a non-residential farm waste customer-generator up to 500kW.
- (4) to lower the eligibility for solar and wind net metering to 25 kW by eliminating the 10% margin that was built into the existing tariff. Originally staff had requested a 10% adder for solar and wind, to address situations where the sizing of individual solar panel units would make it difficult to achieve exactly 25 kW of installed capacity. Our experience has been that sizing is not a major impediment for these installations, and therefore, the requested reduction will allow the tariff to conform to State legislation for all technologies.

B) System Cap on Net Metering

As part of these changes, and consistent with the recent legislation, the overall cap on net metering for renewable resources is not changed. The expanded criteria to allow for farm waste, micro-combined-heat-and-power and fuel cell net metered generators will be counted as part of the overall system capacity limit for solar net metering on LIPA's transmission and distribution system, which is capped at 51.2 MW (1% of LIPA's peak load in 2005).

C) Interconnection Costs

Consistent with the recent legislation, the proposal requires a micro-combined-heat-and-power or fuel cell customer-generator to pay up to three hundred and fifty dollars (\$350.00) to the Authority for the cost of installing transformer(s) and other

equipment, and a non-residential farm waste customer-generator to pay up to five thousand dollars (\$5,000) for this same equipment.

D) Banking of Net Metering Credits

Net metering for residential micro-CHP and fuel cells will operate differently from the net metering provisions than for all other forms of net metering currently allowed under the tariff. For these new forms of net metering, LIPA will purchase the monthly excess generation from micro-CHP and fuel cell customer-generators at LIPA's SC 11 avoided cost rate and these customers will not be allowed to bank their excess generation for use in subsequent months. This different treatment is taken directly from the legislation, and the NY Public Service Commission has adopted identical provisions for the regulated utilities in the State.

The existing terms and conditions for solar and wind, residential and non-residential customer-generators have been extended to include farm waste, micro-combined-heat-and-power and fuel cell customer-generators. LIPA's existing standards for interconnection and operation of the non-residential solar and wind customer-generators are adequate to meet the requirements for net metering of the additional technologies and ensure safe and adequate service.

Background:

The New York State Legislature amended New York State Public Service Law Section 66-j ("PSL § 66-j") to provide for net energy metering of qualifying residential micro-combined-heat-and-power (micro-CHP) and fuel cell generating systems effective August 26, 2009. As defined, a combined heat and power (CHP) system burns a fossil fuel to produce both electricity and heat for hot water or space heating purposes. A micro-CHP system does the same on a smaller scale. Under the Legislation and for purposes of the tariff proposal, the micro-CHP systems will qualify for net metering, limited in size to 10 kW or less. A fuel cell uses hydrogen to generate electricity through a chemical process utilizing natural gas. Since heat is a byproduct of the chemical process, fuel cells can also operate as micro-CHP units and limited in size to 10 kW in this proposal.

Net metering for certain farm waste customer-generators is already in effect under PSL § 66-j and has been since 2003. The statute requires that non-residential farm waste customers receive credits for excess generation at the utility's retail rate. At the end of a year, measured from the generator in-service date, a utility must redeem any remaining credit balance at its avoided cost rate. Currently, farm waste net metering is not incorporated in the LIPA tariff, and only one farm waste candidate has approached the Staff concerning eligibility. However, to ensure that potential farm waste customer-generators are not discouraged from evaluating this opportunity, Staff is proposing to include net metering of farm waste customer-generators into the Tariff.

Previously, customer generators were limited by their own maximum demand as measured over the previous twelve (12) months (not to exceed 2,000 kW). The reason

for this lower limit was two-fold. It discouraged individual customers from installing more generation than they needed and thereby spread out the participation in the program among more customer-generators. The renewable industry experience with the earlier legislation, however, was that solar panels, when capped at the customer's peak load, did not provide enough energy to meet the customer's annual requirements and that wind generators were more economical when sized in bigger increments (such as 100 kW) that were larger than the peak load of most of LIPA's nonresidential customers. As a result, on February 22, 2010, the New York State Legislature once again amended PSL § 66-j and changed the generator size limit test for net metering so that any non-residential solar or wind customer-generator could install up to 2,000 kWh of generation, regardless of usage, and still be eligible for net metering.

Financial Impacts:

The financial impacts on LIPA and its customers are mitigated because the overall participation limits on net metering are unchanged. Customer generation is capped within the Tariff at 15,300 kW for wind and 51,200 kW for solar, and this proposal doesn't change those limitations with the addition of farm waste, micro-CHP and micro-fuel cells to the "solar" limit. The expectation of the new legislation, however, is that customer participation will be stimulated.

Staff expects most of the impact to result from the higher cap on nonresidential solar and wind generators. These are proven commercial technologies and LIPA has been encouraging customers to develop solar and wind resources through its renewable resource program. In addition, since the lost revenues associated with solar and wind generation are recoverable through the Efficiency and Renewable cost recovery rider, the net impact on LIPA's other customers will be addressed through the annual review of that mechanism.

Micro-CHP and fuel cells, on the other hand, are not part of LIPA's efficiency and renewable program, and lost revenues from net metering of these devices are not recoverable through the Efficiency and Renewables Charge. However, micro-CHP and fuel cells are newer technologies with less certain economics, and it is anticipated that participation in these forms of residential customer generation will be minimal. Micro-CHP and fuel cells have extremely high up-front costs, with paybacks of 10 years or more, and there are no LIPA rebates to mitigate or reduce these prolonged payback periods. It is Staff's expectation that the micro-CHP and fuel cell markets will not represent a sizable fraction of the overall net metering program, which is still frozen at 1% of LIPA's system experienced in 2005.

Proposed Tariff Changes:

1. **Expand the size limits on net metering for nonresidential customers to 2, 000 kW and extend the provisions of net metering to residential micro-CHP, residential fuel cells and farm waste.**

Affected Tariff Leaves: 1, 16, 17, 18, 22, 24, 34A, 34A-1, 34B, 34C, 34D, 34E, 34F, 34G, 34H, and 281.