

**State of New York
Public Service Commission**

**In the Matter of the
System Benefits Charge III**

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Case 05-M-0090

**Comments of S.O.L.I.D. USA, Inc. on the
Extension and Expansion of the System Benefits Charge**

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Introduction

S.O.L.I.D. USA, Inc. (SOLID) is a new player in the energy arena in New York. The SOLID solar technology is unique in that it can use the heat of the sun to provide cool air – air conditioning. As such, SOLID is able to harness the sun to reduce summer time, peak electric loads, thereby reducing the strain on the NYS grid, especially downstate, when it is most vulnerable to overload. One of our principals has owned and operated manufacturing facilities in New York in the past and various aspects of the state make it appealing to our company as one focus in the early years of our U.S. market development.

SOLID was founded in 2005 in Arizona as the licensee and affiliate of S.O.L.I.D. GmbH of Austria (SOLID Austria). SOLID Austria was founded in 1991 and, since that time, has developed and deployed over a hundred large-scale solar systems all over Europe for commercial and industrial heating, cooling, and hot water using proprietary technology. SOLID Austria is currently expanding into China and in the U.S. through SOLID USA. Our first project will be installed in Arizona in late 2005.

SOLID recently participated in an application to NYSERDA with Bard College in what it hopes will be its first project in New York. The project will provide space heating for a gymnasium and supplement the swimming pool heating, displacing 75% the fuel oil requirements at the site and saving approximately 30,000 gallons of fuel oil annually. Another project we would like to immediately move forward would include solar cooling, space heating, and domestic hot water for a dormitory at a university. We hope to work with the Commission to move regulations forward that will allow us to develop projects on an on-going basis. Our systems can not only displace electricity, but also displace large amounts of either natural gas or heating oil. In light of Katrina and Rita, we believe it is in the best interest of New York to move solar thermal projects into the regulations, either for the SBC or the RPS, as quickly as possible.

Commercial and Industrial Solar Thermal

Commercial and industrial (C&I) solar thermal is an area of the solar industry that has not been developed in the U.S. until recently for a variety of reasons, primarily: 1) Renewable standards have been developed based on electric generation and not displacement, 2) To the extent that displacement has been considered, it has revolved around electricity and not natural gas or fuel oil, and 3) Natural gas prices have not historically been high enough to focus attention on this arena. These factors are in the process of changing. As a result, solar thermal HVAC systems are beginning to garner interest.

Arizona recently enacted a Solar HVAC Pilot Program and will be incorporating that program into its current revision of its Environmental Portfolio Standard scheduled to be completed by spring of 2006. SOLID and at least one other developer will be installing projects within the next six months with others on the horizon. Both California and Texas have installed their first demonstration projects in the past year and are further

incorporating solar thermal as a resource. Other states, such as Nevada and Pennsylvania, are also incorporating solar thermal within their renewable definitions in the electric arena. All of these activities can have a significant impact on the renewable energy market as, unlike photovoltaic and domestic hot water, this segment of the market is developing from the commercial and industrial level down.

Benefits to New York

C&I solar thermal HVAC systems displace both natural gas/fuel oil and electricity. They have the following benefits on the electric side:

- Displace a majority of the electricity required for air conditioning
- Address efficiently the largest segment of energy usage in the U.S. - buildings
- Have internal storage in the form of hot and/or chilled water that firm the resource
- Reduce peak electricity requirements by producing energy during peak periods
- Relieve strain on the grid by electric displacement
- Are not interconnected and so have no interconnection issues
- Can include CHP systems
- Have all of the benefits associated with distributed generation, including increasing local jobs
- Are large projects, ranging on average anywhere from 50 kW to over 1 MW electric equivalent

C&I solar thermal systems, both those including cooling and those which don't, have the following additional benefits:

- Provide space heating and domestic hot water
- Reduce natural gas and fuel oil requirements, increasing on-site energy security and reducing price volatility while making more natural gas available for electric generation requirements
- Produce and displace thermal energy during the peak
- Are a cost effective solar resource, particularly for small, medium, and large commercial and industrial customers, a segment that will allow for large projects that have a significant impact
- Are a highly efficient use of the sun
- Can be developed and installed in a relatively short timeframe

Adding this renewable resource to the New York programs as quickly as possible makes sense.

Comments Specific to this Proceeding

SOLID understands that New York has recently enacted a renewable portfolio standard (RPS); however, the SOLID or any other solar thermal technology is not currently included. We are submitting these comments to encourage the Commission to incorporate that solar thermal systems will continue to be addressed in the under the SBC

and not the RPS. In particular, we wish to focus the attention of the Commission on the fact that this technology displaces both natural gas/fuel oil and electricity. We believe that renewable technologies that displace peak electricity should receive incentives appropriate to this value.

Of particular concern to SOLID is the lack of a programmatic mechanism to allow C&I solar thermal products to receive incentives under the existing SBC or the existing RPS. This will restrict our ability to develop in New York. We request that the Commission institute an open application process for these systems, similar to that for photovoltaics, so that we do not have the limitations of remaining an R&D activity that can only proceed through sparse competitive solicitations.

We appreciate the opportunity to submit these comments and look forward to working with the Commission and NYSERDA to create a market for C&I solar thermal systems in New York.

Respectfully submitted,

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