aquatherm INDUSTRIES, INC.
LIVE GREEN. SWIM WARM.

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September 12, 2019

New Jersey EMP Committee,

I am Kevin Garbie, representing Aquatherm Industries, Inc located in Lakewood, NJ; a manufacturer of solar collectors/panels that are primarily used to heat swimming pools. Aquatherm fully supports New Jersey's goal of de-carbonization, and we commend the EMP Committee's inclusion of renewables in its strategies thus far.

I am here to bring attention to one of the larger consumers of Natural Gas in a NJ home, although not in all homes the numbers are quite staggering. For the purpose of this report I will stay with Btu's and Therms although the carbon emissions should not be ignored.

According to a survey conducted by the US Energy Information Administration, the average NJ home is amongst the highest energy consumer in the US at 127 mm Btu per year. It is estimated natural gas is the primary energy source for 80% of more than the 2,000,000 NJ homes, equating to approximately 102 mm Btu (1020 Therms) of annual usage, of which 18% is used to heat water inside the home.

However this survey and others do not take account for the homes in NJ that have a heated pool in the backyard. This large body of water is often overlooked from residential energy use surveys. Of the 2,000,000 NJ homes, NESPA - the Northeast Spa and Pool Association estimates that there are 100,000 in-ground swimming pools. Approximately 50% or 50,000 of those residential pools are heated by natural gas. An average size residential pool will most likely have a 400,000 Btu gas heater installed. The average NJ home at 2400 $ft^2$ will typically have a 100,000 Btu furnace installed. By those simple numbers it can be seen that an average size pool has a heater 4 times the size of the average NJ home furnace.

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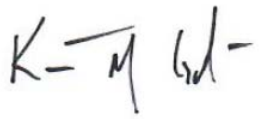
When comparing the usage, a NJ Pool heated by natural gas to 83F will use approximately 130 mm Btu (1300 therms) from Memorial Day to Labor Day. As previously mentioned according to the EIA Survey the average NJ Home uses 102 mm Btu (1020 Therms) annually. In a 3 month period, the pool is consuming more than the average household's annual usage.

Since the beginning of the Solar pool heating industry it has been said that heating a swimming pool is a luxury; for this reason solar has been excluded from many credits and rebate programs. Agreeing with the idea that a heated swimming pool is a luxury, and the information presented about how much energy is used to heat a pool. I ask the question; Should the use of natural gas to heat residential swimming pools be allowed to continue?

Sincerely,



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