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June 19, 2017

***VIA HAND DELIVERY***

Irene Kim Asbury,
Secretary of the Board
New Jersey Board of Public Utilities
44 South Clinton Avenue ~ 9th Floor
Trenton, New Jersey 08625-0350

AO 17060668

**Re: In the Matter of the Petition of the New Jersey Apartment Association**
**Our File No.: NEW-146-902**

Dear Ms. Asbury

On behalf of our client, the New Jersey Apartment Association, we hereby submit an original and eleven (11) copies of the enclosed Petition seeking an Order Authorizing the Use of Sub-Metering to Advance Water, Gas, and Electric Conservation in Existing Residential Apartment Buildings. Also enclosed is an electronic version of the Petition contained on the attached flash drive.

We have also enclosed our Firm's check, in the amount of $25.00, made payable to the Treasurer, State of New Jersey, to satisfy the required filing fee.

Please let me know if you have any questions or comments.

Thank you for your courtesy and assistance.

CMS
Legal
DAG
RPA
M. Moran
M. Kammer
T. Walker
S. Peterson

Very truly yours,

MICHAEL F. FLOYD

MFF:dl
Enclosures

cc: David Brogan, Executive Director (w/encs.)
Nicholas Kikis, Vice President, Legislative & Regulatory Affairs (w/encs.)
Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel (w/encs.)

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**STATE OF NEW JERSEY**

**BOARD OF PUBLIC UTILITIES**

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| IN THE MATTER OF THE PETITION OF THE NEW JERSEY APARTMENT ASSOCIATION FOR AN ORDER AUTHORIZING THE USE OF SUB-METERING TO ADVANCE WATER, GAS, AND ELECTRIC CONSERVATION IN RESIDENTIAL APARTMENT BUILDINGS | PETITION<br>DOCKET NO. |



TO THE HONORABLE BOARD OF PUBLIC UTILITIES:

The New Jersey Apartment Association (hereinafter referred to as "Petitioner"), an organization of more than 700 apartment owners, managers, builders, developers, and affiliated businesses, with its principal offices at 104 Interchange Plaza, Suite 201, Monroe Township, New Jersey, hereby petitions this Honorable Board (hereinafter referred to as the "Board") for approval to sub-meter water and sewer utility service[1], gas service, and electric service in all existing apartment buildings where the basic characteristic of the use is residential.

Petitioner will show by way of this Petition that: (i) the Bi-Partisan Red Tape Report has recognized that New Jersey should permit sub-metering, (ii) landlords are not directly regulated by the Board; (iii) the potential savings of permitting water sub-metering will range from 15% - 39% or more and will conservatively exceed 2 billion gallons per year; (iii) the potential savings of permitting electric sub-metering will range from 10%-26%; and, (iv) that there are similar savings from permitting gas sub-metering.

In support thereof, Petitioner states as follows:

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[1] Because the instances where sewer service is metered and, therefore, can be sub-metered, are rare, this Petition will only reference water sub-metering, without reference to sewer sub-metering.

## A. INTRODUCTORY MATERIAL

1. The benefits of water, gas, and electric sub-metering of buildings are irrefutable. Experts in conservation efforts have collected data for decades, and the data unambiguously supports the positive societal benefits of sub-metering. There are no alternative facts or data that refute the conservation benefits of sub-metering. Notably, the Office of the President of the United States, National Science and Technology Council Committee on Technology, Subcommittee on Buildings Technology Research and Development, determined that "[t]he building community should view submetering as an essential component of future building operational improvements for energy efficiency and conservation improvements," and recommended, among other things, that as part of "overall building design and retrofit projects, building owners should evaluate the economic and technical feasibility of submetering." See "Submetering of Building Energy and Water Usage, Analysis and Recommendations of the Subcommittee on Buildings Technology Research and Development, Office of the President of the United States, National Science and Technology Council Committee on Technology, Subcommittee on Buildings Technology Research and Development, dated October 2011, a copy of which is attached hereto as Exhibit "A", ("White House Recommendations"). Further, the White House Recommendations state that "potential reductions" (i.e. conservation benefits) are more likely to come from the residential sector, as opposed to the commercial sector. Id.

2. Overall, sub-metering has been a focus at the federal, state, and local levels of government. For example, the Office of the President of the United States of America, the U.S. Department of Defense, and the U.S. Department of Energy have adopted numerous regulations, rules, and guidelines regarding sub-metering.[2] Likewise, Georgia's 2010 Water Stewardship Act

[2] See e.g. Office of the President, Executive Order 13514, "Federal Leadership in Environmental, Energy and Economic Performance," Federal Register 74 No. 194 (October 8, 2009).

requires sub-metering of each new multi-unit residential building, and encourages the installation of sub-meters in existing multi-unit buildings.[3] Also, Massachusetts allows for the sub-metering of water in existing residential buildings.[4]

3. In the New York State Energy Research and Development Authority (the "NYSERDA") report on multi-family dwellings, "ratios of the highest user of electricity in a typical apartment complex to the average user of electricity in the same apartment complex typically calculated to a ratio of approximately 3:1." The analysis of the usage confirmed that "approximately 10 percent of the building's apartments consumed typically 20 to 25 percent of total apartment usage, and that approximately 70 to 80 percent used less than half of the total apartment usage." See White House Recommendations, citing NYSERDA, "Electricity Reduction in Master Metered Buildings Low Income Rate Impact Analysis," dated October 2009.

4. Industry, academic and government sponsored studies confirm that sub-metering water will conserve 15% - 39% or more, which means that if sub-metering is permitted throughout New Jersey and only one-quarter of New Jersey's apartments participated, in excess of two (2) billion gallons of water could be saved each year. See "Water Conservation and Economy in New Jersey Through Sub-Metering of Water in Multi-Family Rental Housing," prepared by the New Jersey Apartment Association, dated January, 2005, a copy of which is attached hereto as Exhibit "B", (the "2005 White Paper"). Greater participation through policies encouraging sub-metering would yield even more water conservation.

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http://www1.eere.energy.gov/femp/pdfs/eo13514.pdf; U.S. Department of Defense, Instruction 4170.11, "Installation Energy Management," (Issued November 2009, revised December 2009).

[3] See Georgia's Water Stewardship Act

[4] See Mass. Gen. Laws ch. 186 §22.

5. The Bi-Partisan Red Tape Report listed New Jersey's prohibition of sub-metering under the heading of "Examples of Archaic and Anachronistic Rules" that State "agencies in question pay particular attention to" as part of the 180-day review of all existing regulations as required under Governor Christie's Executive Order #2. See Bi-Partisan Red Tape Report, dated April 19, 2010, attached at Exhibit "C", (the "Red Tape Report"). While the Board now permits sub-metering of water in new construction (see below for details), sub-metering in existing residential buildings remains prohibited and, thus, stymies further conservation efforts.

6. New Jersey has long been a leader in recognizing the need to conserve natural resources, especially water. For example, the Highlands Commission was created, if for no other reason, for the conservation of water resources, which provide water to more than half of New Jersey's residents. Governor Christie has urged residents to "be smart" in conserving drinking water. See NJ.com article, dated July 7, 2010, attached as Exhibit "D". Governor Christie has also expressed his commitment to protecting the integrity of the State's water and sewer systems. In a Press Release issued by the Governor's Office, Governor Christie stated, "It is imperative that we maintain the integrity of the State's water supply and sewer systems, to protect the public health and ensure our continued commitment to the environment." He added, "There is nothing more important to our residents." See Office of the Governor Press Release, dated August 31, 2010, attached as Exhibit "E".

7. Petitioner is a statewide organization of apartment owners, managers, builders and developers representing the owners of more than 200,000 units, as well as those involved in related industries, all of whom are dedicated to maintaining and improving existing properties and promoting and producing new and affordable apartments throughout New Jersey. Petitioner

estimates there are more than 587,000 rental apartments in New Jersey, and approximately 369,733 apartments are in professionally managed properties of 20 apartments or more.[5] Petitioner represents approximately 50% of owners or managers of these apartments.

8. Petitioner applauds the Board's commitment to actively explore the issue of sub-metering and is requesting that the Board permit landlords to sub-meter water, gas and electric utility service in all new apartment buildings where the basic characteristic of use is residential.

9. In the context proposed by Petitioner, "sub-metering" involves the installation of utility grade meters for each apartment home to measure and bill for actual consumption or use, where the property owner remains the customer of record with the utility provider. Typically, a third-party vendor is contracted by the property owner to install and maintain the meter, as well as manage billing services to each resident, based upon that resident's actual personal usage.

10. The Board has characterized "sub-metering" as involving the sale of service by a landlord who merely recovers his own costs plus reasonable administrative expenses. See In Re Public Service Elec. & Gas Co., Docket No. 7511-1176 (Order Rejecting Hearing Examiner's Report and Recommendations 10/15/80). Petitioner is seeking permission for landlords to sub-meter and recover only the actual costs associated with the consumption and use of water, gas, and electric service. Petitioner is not requesting that landlords be entitled to any reimbursement of any administrative costs related to the sub-metering of utilities, and Petitioner is not seeking

[5] With respect to the overall number of apartment, see NMHC tabulations of 2014 America Community Survey Microdata. An apartment is defined as a unit occupied by renters, a vacant unit, or a rented unit not yet occupied, all located in a structure with five or more units. With respect to the number of number of 20+ unit apartments, see U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates.

permission for landlords to earn any profit through the resale of water, gas or electric utility service.

11. Water sub-metering is generally permitted in areas where Municipal Utilities Authorities ("MUAs") have jurisdiction over water and sewer services. The area where MUAs have jurisdiction covers roughly one-half of New Jersey's residents.[6] All New Jersey residents should be entitled to receive the benefits of sub-metering, and it is patently unfair that certain residents cannot participate in conservation efforts merely because they live in an existing residential building (as opposed to new construction) and their utility provider is under the jurisdiction of the Board, as opposed to an area where a local MUA has jurisdiction.

## B. NEW JERSEY LEGAL AUTHORITY REGARDING SUB-METERING AND CHECK[7] METERING

1. The New Jersey Supreme Court has left the matter up to the Board's discretion as to whether to permit sub-metering. Sixty-Seventh S. Munn Corp. v. Public Service Elec. & Gas Co., 106 N.J.L. 45 (1929). The Board's current position is set forth in Board decisions and orders. There are no statutes, nor regulations, governing sub-metering, but the New Jersey Department of Community Affairs does permit Indirect Heat Apportionment. See N.J.S.A.

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[6] As a practical matter, water and sewer sub-metering has been successfully implemented throughout the approximately half of New Jersey outside of the Board's jurisdiction. Unlike the Board's previous regulation of electric and gas sub-metering where the regulation affected virtually all consumers throughout the State, such a regulation of sub-metering has no effect on consumers served by water providers outside of the Board's jurisdiction such as municipal utility authorities. See e.g. South Lakewood Water Company v. Township of Brick, 61 N.J. 230 (1972) (Board of Public Utilities has not been conferred jurisdiction by the legislature to regulate water utilities operated by municipalities or municipal utility authorities.) This exception applies to a municipality or municipal utility authority except those that furnish water to 1000 or more billed customers outside of the serving municipality's boundaries.

[7] In New Jersey, the concept of "check metering" was historically the concept of metering after a master meter when the landlord merely recovered his costs plus expenses, whereas sub-metering was the concept where the landlord resold utility services at a profit. The Board no longer uses the check metering terminology.

55:13A-7.8 and N.J.A.C. 5:23-2.8.[8] The referenced New Jersey Supreme Court decision and certain Board decisions and orders are described in the following paragraphs.

2. In Sixty-Seventh S. Munn Corp., a residential landlord sought to re-meter usage of the master meter and resell electric service to his tenants at a profit. The Board had previously refused to order Public Service Electric and Gas Company (hereinafter referred to as "PSE&G") to supply energy to the landlord under these circumstances, holding that the system was inconsistent with the scheme of regulation. The New Jersey Supreme Court upheld the Board's decision stating that the Board acted within its lawful discretion in so finding and in refusing to issue a compelling order against the utility. Id.

3. The Board's formal policy on the sub-metering of electric and gas service was promulgated through the issuance of four separate Board orders. See In the Matter of a Pilot Program Allowing Sub-metering (Formerly Check-Metering) in Residential Properties Regulated by the New Jersey Housing and Mortgage Finance Agency, Docket AO05080734, dated September 14, 2005.

a. Initially, electric sub-metering was allowed in industrial and commercial buildings, and residential buildings that are publicly financed and government-owned. I/M/O Petition of PSE&G for an Order Approving an Amendment to Section 9 of the Standard Terms and Conditions of the Filed Tariff for Electric Service, Docket No. 7511-1176, Order Rejecting Hearing Examiner's Report and Recommendations (October 15, 1980). Id.

b. The Board subsequently allowed electric sub-metering in cooperative housing and condominiums. I/M/O Petition of PSE&G for an Order Approving an Amendment to Section 9 of the Standard Terms and Conditions of the Filed Tariff for Electric Service, Docket No. 7511-1176, Order of Modification (March 4, 1981). Id.

c. In 1986, the Board issued an order allowing sub-metering of gas service consistent with its earlier orders regarding the sub-metering of electric service and in

[8] "Indirect apportionment of heating costs" in a multiple dwelling means the charging to each dwelling unit within that multiple dwelling of a portion of the heating costs for the multiple dwelling as a whole on the basis of any method or device other than direct measurement of fuel or current consumption by separate metering devices, approved by the Board of Public Utilities pursuant to R.S. 48:2-25, for each such dwelling unit.

charitable institutions. I/M/O Board's Investigation Into the Check Metering of Gas Service, Docket No. GX8509901 (September 5, 1986). Id.

d. In 2001, the Board rejected a request to extend sub-metering to privately-owned residential housing units. I/M/O Petition of Marine View Plaza Apartments for a Declaratory Ruling Permitting Check-Metering, Docket No. EO99040252, Order Denying Motion (March 30, 2001). At the time, the Board specifically rejected the extension of the allowance of sub-metering in privately owned residential multi-unit housing even though the property was publicly financed. The Board noted its concern regarding the "unscrupulous" landlord who might take advantage of tenants and the lack of ability to monitor such a situation. Id.

4. In March 2000, the Petitioner submitted a Petition requesting an Order approving water sub-metering in connection with Docket Nos. WO00040254, WO00070510 and WO00060360. On April 20, 2004, the Board issued a letter in reference to the aforementioned Petitions indicating that the Board's Staff had recommended: (i) denial of the referenced Petitions; (ii) expansion of the Board's current sub-metering policy to encompass water sub-metering; and (iii) promulgation of a rule to codify the Board's ultimate decision.

5. Subsequently, the Board instituted a working group process that led to the Board's decision in I/M/O a Pilot Program Allowing Sub-metering (Formerly Check-Metering) in Residential Properties Regulated by the New Jersey Housing and Mortgage Finance Agency, Docket AO05080734, dated September 14, 2005, where the Board initiated a five-year pilot program on sub-metering in conjunction with the New Jersey Housing and Mortgage Finance Agency ("NJHMFA"), to be administered and monitored by NJHMFA which, as a result, only permitted sub-metering in lower income housing units. This pilot program was limited to electric and gas sub-metering, did not include water or sewer service, and was restricted to NJHMFA financed buildings. Market rate housing was not permitted to be included as part of the pilot program. On November 20, 2009, the Board suspended the pilot program effective January 1, 2010, prior to the beginning of the pilot program's final year. See In the Matter of a Pilot Program Allowing Sub-metering (Formerly Check-Metering) in Residential Properties

Regulated by the New Jersey Housing and Mortgage Finance Agency, Docket No. AO05080734, December 10, 2009.

6. In December 2010, the Petitioner submitted a Petition requesting an Order approving water sub-metering in newly constructed residential apartment buildings. On August 28, 2011, the Board issued an Order permitting water sub-metering in newly constructed residential properties. Among other things, the Board found that water sub-metering in newly constructed residential buildings was in the public interest. In particular, the Board stated that it believes that that "the conservation benefits of water sub-metering, combined with the technical sophistication of today's water sub-metering systems, the oversight of the local municipal construction office ensuring compliance with water conservation requirements through... and the current laws governing the landlord-tenant relationship, adequately protects the rights of tenants living in new apartment buildings where water is proposed to be sub-metered." See In the Matter of the Petition of the New Jersey Apartment Association for an Order Authorizing the Use of Water Sub-Metering to Advance Water Conservation in New Residential Apartment Buildings, Docket No. WO11060381, August 28, 2011.

## C. PETITIONER'S REQUEST FOR PERMISSION FOR LANDLORDS TO SUB-METER WATER SERVICE, GAS SERVICE, AND ELECTRIC SERVICE

1. Petitioner is seeking Board approval for landlords to sub-meter water, gas, and electric utility service in all apartment buildings where the basic characteristic of the use is residential.

2. Petitioner notes that (1) landlords are not public utilities and the Board has no basis upon which to exercise jurisdiction over landlords; and (2) to the extent necessary, the Board should require public utilities to permit landlords to sub-meter water, gas and electric

utility service because the conservation benefits of sub-metering significantly outweigh any problems associated with sub-metering.

**D. LANDLORDS ARE NOT PUBLIC UTILITIES**

1. Petitioner's member landlords are not public utilities because they do not own, operate, or control, any water, electric, or gas equipment for "public use."

2. In the instant situation, landlords own, operate, manage and/or control (or will own, operate, manage and/or control) utility grade meters. By way of example only, with respect to water meters, the question of whether these water metering devices are owned and operated for public use is answered by looking at the character and extent of the landlords' use of the water meters. See Lewandowski v. Brookwood Musconetcong River, etc. Ass'n, 37 N.J. 433, 443-444 (1962) The "character and extent of use" of the landlords' use of water metering devices is that the landlords will use sub-meters as means of measuring the actual water utility costs among their tenants. The landlords will simply place sub-meters downstream from a master meter. There will be no increase in the number of customers served. The same holds true for other sub-metering efforts. Specifically, the landlords will merely meter the actual water, gas, and electric service that their tenants receive after the master meter and no one else.

3. The New Jersey courts have previously determined that landlords who provide water utility for their tenants are not operating for public use and, therefore, are not public utilities. Junction Water Company v. Riddle, 108 N.J. Eq. 523 (Chancery 1931) involved a landlord who owned eight houses within one town and who was dissatisfied with the water company's service. The landlord constructed a system of pipes from his artesian well to the eight houses and began to supply service at no additional charge to the tenants. The court dismissed the water company's bill seeking an injunction restraining the landlord from providing this service, noting that a landlord supplying water to his own tenants is not supplying water for

public use as contemplated by the regulatory statute. Similarly, Antique Village Inn v. Pacitti, Robins & Anglin, 160 N.J. Super. 554 (Law Div. 1978) involved the issue of whether a commercial landlord (a shopping mall) has the right to purchase energy from a public utility and distribute it at an increased rate to its tenants without Board approval. Although it is not clear, the landlord presumably was seeking to earn a profit. The case arose in the context of a tenant's petition for an order requiring the landlord to obtain Board approval of his rates. The court concluded that a landlord providing utility services to its tenants is not subject to regulation as a public utility. In so holding, the court noted that the provision of utility service under such circumstances was merely incidental to the landlord-tenant relationship, and that the situation was indistinguishable from the situation where the utility service is included with the rent, without individual metering. The court based its holding on its determination that the commercial landlord did not come under the jurisdiction of the Board because it was not providing services for public use. This analysis should apply to sub-metering of water, gas, and electric services.

4. The Board has never directly addressed the two court decisions discussed in the preceding paragraph. It has, however, determined that operating sub-meters does not, by itself, give rise to a finding of public use. In In Re Exxon Corporation, Docket No. EE96120838 (Declaratory Order 3/18/98), the Board decided that the provision of steam by Cogen Technologies Linden Venture, L.P. (hereinafter referred to as "Cogen") to Exxon Corporation (hereinafter referred to "Exxon") and Bayway Refining Company (hereinafter referred to as "Bayway") did not constitute the provision of utility services. In order to make such a determination, the Board first had to consider whether Cogen and/or Exxon, operated plant and equipment and, if so, whether the operation of the facilities constituted operations for public use

under privileges granted by the State of one of its subdivisions. The Board held that the existence of meters controlled by Cogen and/or Exxon did not by itself give rise to a finding of public use. The Board stated that even though Exxon, in order to allocate usage, sub-metered and charged for steam delivered through its system to Bayway, the Board found that the mere fact that there were metered charges was not sufficient for a showing of public use absent the presence of other important indicia of public use such as a network or pipes or a significant increase in the number of customers served.

5. It is important that the Board realize that sub-metering is simply a means by which a landlord allocates actual utility costs among tenants using a utility grade meter so a tenant only pays for the water, gas, or electricity that he or she actually uses, and the tenant is able to control his or her utility costs. Other billing methods available to landlords to allocate water utility costs among tenants that are outside the Board's jurisdiction include simply recovering water utility costs indirectly from tenants through the rents they charge (this method will hereinafter be referred to as "In-Rent") and allocating water charges based on some mix of apartment size of number of people (this method is referred to as Ratio Utility Billing Systems and hereinafter will be referred to as "RUBS"). Industrial Economics, Incorporated, Submetering RUBS, and Water Conservation, (Final Report June 1999), p.1.[9] Based upon the data and expert reports, and as described in this Petition, the fairest methodology of allocating utility costs to tenants is by sub-metering.

[9] A copy of Industrial Economics, Incorporated, Submetering, RUBS, and Water Conservation, (Final Report June 1999) is attached to this Petition as Exhibit "I."

## E. PUBLIC UTILITIES SHOULD BE REQUIRED TO PERMIT THEIR CUSTOMERS TO SUB-METER IN ALL EXISTING RESIDENTIAL BUILDINGS

1. As demonstrated by the New Jersey court decisions discussed above, landlords who sub-meter do not provide utility services for public use. Therefore, the landlords are not public utilities and are not subject to the Board's jurisdiction.

2. Although the landlords are not directly subject to the Board's jurisdiction, the Board can still indirectly exercise jurisdiction over landlords by not allowing public utilities to permit landlords to sub-meter. The Board, should require public utilities to permit landlords to sub-meter utilities because the conservation benefits of sub-metering are enormous and significantly outweigh any potential problems resulting from sub-metering.

## F. SUB-METERING PROMOTES CONSERVATION

1. As the Board knows and has stated in its previous decisions and orders, sub-metering promotes conservation. Therefore, it is axiomatic that sub-metering in existing residential buildings will further promote conservation.

2. In addition to the White House Recommendations, there are numerous government, academic and industry-sponsored studies that confirm the benefits of sub-metering, which include a study completed in June 1999 by Industrial Economics, Incorporated of Cambridge, Ma. for the National Apartment Association (NAA) of Alexandria, Va. and the National Multi-Housing Council (NMHC), a more recent study sponsored by the EPA and reported during the summer of 2004 entitled "Sub-metering, RUBS[10] and Water Conservation," and a 2004 study by the Tuck School of Business at Dartmouth.

[10] It should be noted that the titled word RUBS is an acronym for Ratio Utility Billing Systems, an alternate method of directly assessing residents for utility costs based on factors such as square footage formulas. This Petition is solely concerned with direct sub-metering.

3. 1999 NAA NHMC Study: The NAA/NMHC study examined water consumption patterns and water and wastewater billing for 32 properties in three states (California, Texas and Florida). The properties represented a broad mix of building sizes, ages and managements and confirmed that sub-metering results in significant conservation. This study concluded that residents who pay for their own water use less. The Executive Summary of the study stated, "Water consumption is generally lower in buildings where residents pay for their own water than in buildings where costs are directly recovered through rents. Sub-metered properties, which have the most direct link between consumption within a single apartment and the monthly bills, used 18-39 percent less water than did in-rent properties." See "Sub-metering, RUBS and Water Conservation," prepared by Industrial Economics, Incorporated for the National Apartment Association and National Multi-Housing Council, attached as Exhibit "F".

4. 2004 EPA Study: A more recent 2004 study entitled the "National Multiple Family Sub-Metering and Allocation Billing Program Study", sponsored jointly by the United States Environmental Protection Agency ("EPA"), 10 municipal water utilities, the National Apartment Association and the National Multi Housing Council, found that direct water billing to residents conserves water. The two-year study released in August 2004 found that sub-metering could save about 15 percent of water used in apartments or some 8,000 gallons/year/apartment. See "National Multiple Family Sub-Metering and Allocation Billing Program Study", sponsored in part by the United States Environmental Protection Agency and other parties, 2004. A copy of the Executive Summary is attached hereto as Exhibit "G". The complete 386 page report can be provided upon request.

5. Tuck School of Business at Dartmouth Study: The Tuck School at Dartmouth University evaluated the effect of water savings from sub-metering. For the study, Dartmouth

examined 8,000,000 data records taken from a sub-metering company across 10 different properties. The properties studied were all multi-family dwellings ranging from 39 to 238 units (104 on average) with a sub-metering history ranging from 5 to 14 months. This study focused on three properties where the deployment plan allowed Dartmouth to analyze a pre-billing period of several months and compare it with post-installation consumption. The data collected across both periods allowed Dartmouth to test whether reduced water consumption followed the commencement of sub-metering at the property. For the three properties with pre- and post-billing sub-meter histories, Dartmouth's analysis of 504 occupied units show that there was a meaningful reduction in overall water consumption. The overall savings range from 20 percent to 32.3 percent within an average of 27.1 percent. See Tuck School of Business at Dartmouth Report entitled, Wireless Sub-metering and Water Conservation-Is it Worth Doing?, a copy of which is attached as Exhibit "H".

6. The Natural Resources Defense Council ("NRDC") published a report entitled "Energy Down the Drain, The Hidden Costs of California's Water Supply", attached as Exhibit "I", in which it examined the large amounts of energy to treat and deliver water by water utilities and the amount of energy used to heat, cool and use water by consumers. As part of that study, the NRDC called for the universal measurement of water, which included mandatory sub-metering of multi-family housing. Id. at page 60.

7. Case Studies: The Petitioner has identified specific examples from New Jersey and Pennsylvania that further confirm the conservation benefits of sub-metering. The following illustrations taken from the Petitioner's 2005 White Paper entitled, "Water Conservation and Economy in New Jersey Through Sub-metering of Water in Multi-Family Rental Housing," a

copy of which is attached as Exhibit "B" (the "2005 White Paper"), show the before and after water usage in buildings that have been sub-metered:

a. Springfield Valley Apartments, Delaware County, PA - After separate water meters were installed, a 12-unit property had its water and sewer bill reduced from $2,195.00 (95-day cycle) to $308.86 for a quarter just one year later. Much of the savings was realized from one apartment toilet that was flushing constantly and had never been reported by the resident. Without sub-metering this toilet issue would not have been identified.

b. Willow Run Apartments, Montgomery County, PA - This 172-unit property had water sub-meters installed and resulted in an average water conservation amount of 26% for the first four months after the residents began receiving water bills.

c. Virginia Court, Monmouth County, NJ - A 52-unit property realized a 20% reduction in water consumption after total point-of-use sub-metering equipment was installed. Conversion cost $25,000. Actual water use went from 14,661 gallons per quarter to 11,760 gallons per quarter for a saving of about 0.5 million gallons of water each year.

d. Atlantic Gardens, Atlantic County, NJ - A 173-unit property realized a 22% reduction in water consumption after total point-of-use sub-metering equipment was installed. Conversion cost $83,000. Actual water use went from 62,505 gallons/apartment/year to 48,404 gallons/apartment/year for an annual saving of about 2.4 million gallons of water each year.

8. In the 2005 White Paper, Petitioner looked at potential water conservation based on the assumption that, in 2000 New Jersey had 8.4 million residents living in 3.3 million housing units, including 1.05 million apartments and that one-quarter of New Jersey's apartments (262,500) apartments would elect to sub-meter and reached the following conclusions.

a. Illustration 1:

The NJGS[11] reports approximately 450 billion gallons of potable water use in New Jersey in 1999. For this illustration it is assumed that even though rental housing comprises nearly 33 percent of dwelling units in the state, just 20 percent of total statewide potable water use – about 90 billion gallons -- was in rental units, translating to 22.5 billion gallons of potable water consumed in apartments that would be sub-metered (one quarter of all apartments in the state).

- A reduction of 10 percent in sub-metered apartments thus would save 2.25 billion gallons of water per year.
- A 15 percent savings would conserve 3.375 billion gallons per year.
- A 20 percent reduction would save 4.5 billion gallons per year, equal to an annual savings of 1 percent of all statewide use of potable water.

b. Illustration 2

This illustration applies the finding of the joint EPA/industry study released during August 2004, which found that sub-metering conserves 15 percent of water used in apartments or 8,000 gallons per year per apartment.

Based on the constant of 262,500 apartments this translates to more than 2.1 billion gallons of water conservation per year.

c. Illustration 3

This illustration assumes the constant of 262,500 sub-metered apartments and use of 100 gallons of water per apartment per day. The result projects the following savings:

- 10 percent = 958 million gallons of water saved per year
- 15 percent = 1.44 billion gallons of water saved per year
- 20 percent = 1.92 billion gallons of water saved per year.

d. The NJAA believes these illustrations – which clearly demonstrate substantial water conservation – are reasonable and prudent and point clearly to a finding that water sub-metering in New Jersey multi-family rental properties is a critically important water conservation measure.

[11]The NJGS refers to an informational circular entitled "Water Withdrawals in New Jersey, 1990-1999," a publication of the New Jersey Geological Survey (NJGS), a part of the New Jersey Department of Environmental Protection.

9. The cost of water services have risen rapidly in recent years. This trend reflects a number of factors including the scarcity of clean water, an increasing share of delivery and treatment costs being passed onto the final consumer, and the elimination of declining block rates by many municipalities. Declining block rates provided volume discounts for bulk water consumers. In many cases, they have been replaced by increasing block rates, where bulk consumers of scarce water resources pay more not less for this privilege. Industrial Economics, Incorporated at 4.

10. Rising prices have made it difficult for landlords to ignore the costs of water services. Rather than continue to absorb them in their general operating overhead costs, landlords have attempted to control these rising costs by investing in water conserving capital, and by shifting the costs of water services onto tenants. Id.

11. Tenants who pay for their own water directly use significantly less, i.e. conserve significantly more, water than tenants for whom water costs are a part of their rent. Id. at 7. In the recent Industrial Economics study, it was determined that the billing method resulting in the most conservation is sub-metering. The median sub-metered property used between 18 and 39 percent less water than the In-Rent sample. The study concluded that the method of billing for water affects consumption levels more strongly that either the unit cost of water or the age of the building. Of the ten least efficient properties in the study, between 70 and 80 percent did not charge tenants directly for water. Id. at 25.

12. Despite the fact that tenants who pay for their own water consume the least water, most apartment residents pay for their water usage through their monthly rent, i.e. In-Rent. Jack Goodman, Water Conservation From User Changes in Multifamily Rental Housing, (June 7, 1999), attached as Exhibit "J". The relative infrequency of separate billing, i.e. sub-

metering or RUBS, has several explanations. In the past, water prices were low and it was either prohibitively expensive or technically infeasible to monitor usage and bill apartment residents separately for water. In recent years, however, water prices have been increasing and the technology of water metering has been improving and the equipment is becoming less expensive. Id. at 1.

13. It is important to note that conservation, in addition to saving water, can delay or eliminate the need to replace water facilities that are approaching capacity with costly new facilities. Id.

14. Numerous case studies have been conducted to confirm the conservation benefits of electric sub-metering. For example:

a. Illustration 1 (Noble Mansion)

Noble Mansion is located at 1500 Noble Avenue, near the intersection of the Cross Bronx Expressway and the Bronx River Parkway in the Bronx. All 237 apartments are occupied by rent stabilized tenants. The installation of electric sub-meters in each unit was completed in 2007. Overall, from October 31, 2008 through November 3, 2009, there was annual adjusted reduction in usage of 13.9%.[12] See Exhibit "K"

b. Illustration 2 (Cadman Plaza North)

Cadman Plaza North is a high-rise cooperative building, containing 250 apartments, located at 140 Cadman Plaza West in downtown Brooklyn. Electrical sub-metering was implemented in 2003 using a NYSERDA incentive to assist in funding the installation of sub-meters. Overall, from October 30, 2008 through November 2, 2009, there was annual adjusted reduction in usage of 20.95%.[13] See Exhibit "L"

c. Illustration 3 (Queens Fresh Meadows)

The Queens Fresh Meadows complex includes two, 13-story high-rise buildings; sixty-seven, 2-story low rise buildings; and, seventy, 3-story low rise buildings. Overall, there are 2009 apartments contained in these buildings, which are

[12] See "Updated Case Study: Electrical Submetering and Time of Use Pricing at Noble Mansion," prepared by Herbert E. Hirschfeld, P.E.
[13] See "Updated Case Study: Electrical Submetering at Cadman Plaza North," prepared by Herbert E. Hirschfeld, P.E.

occupied by rent stabilized tenants, and are located on the eastern edge of Queens. Electrical sub-metering was implemented during 2005-2006. Overall, from September 23, 2008 through September 24, 2009, there was annual adjusted reduction in usage of 34.2%.[14] See Exhibit "M"

## G. IMPLEMENTATION OF A WATER, GAS, AND ELECTRIC SUB-METERING POLICY IN NEW JERSEY

1. Petitioner is seeking a ruling that landlords may sub-meter existing apartment buildings for water, gas and electric in accordance with all applicable statutes, rules, and regulations.

2. The Board has neither the jurisdiction, nor expertise, to legislate the relationship of a landlord and tenant. New Jersey's landlords are among the most heavily regulated businesses in the State. The landlord tenant relationship is governed by New Jersey Anti-Eviction Act, N.J.S.A. 2A:18-61.1, and the Summary Dispossess Act, 2A:18-53, and adjudicated through a special part of the New Jersey Superior Court. Apartment buildings are subject to the New Jersey Hotel and Multiple Dwelling Law, N.J.S.A. 55:13A-1 et seq. and the New Jersey Department of Community Affairs, Bureau of Housing Inspection, conducts a comprehensive inspection every five (5) years. There are also inspections by County Health Departments, municipal registration requirements and inspections, among other requirements (collectively, the "Existing Landlord Tenant Regulation").

3. Petitioner asserts that adequate safeguards for both landlords and tenants exist within the substantial and comprehensive framework of laws, regulations and ordinances governing the multi-family housing industry and the landlord tenant relationship.

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[14] See "Updated Case Study: Electrical Submetering at Queens Fresh Meadows," prepared by Herbert E. Hirschfeld, P.E.

4. Despite the existing safeguards and Existing Landlord Tenant Regulation, Petitioner proposes the following additional safeguards (the "Additional Safeguards"):

**a. A tenant's unit may be separately sub-metered by individual water, gas, and/or electric sub-meters, any of which shall be installed by a plumber or electrician licensed in New Jersey.**

**b. A tenant's obligation to pay for water, gas, and/or electricity usage shall be provided in an executed Lease Agreement or Addendum, and such obligation cannot be located in "fine print".**

**c. A landlord may elect to sub-meter less than 100% of an apartment (for example, certain fixtures may not be able to accommodate available sub-metering equipment or there could be structural impediments to sub-metering certain utilities). If a landlord sub-meters less than 100% of a unit, a landlord shall only charge a tenant for any usage as measured by sub-meters.**

**d. With respect to a new tenant, who has not previously lived in any unit in the apartment building, a landlord, pursuant to an executed Lease Agreement or Addendum, may sub-meter and charge for water, gas and/or electricity usage at the start of a new lease term.**

**e. With respect to an existing tenant, who currently lives in the apartment building, a landlord, pursuant to an executed Lease Agreement or Addendum, may sub-meter, but may only charge for water, gas, and/or electricity usage after providing a tenant, prior to the start of a new lease term, at least 6 months of charges, for which landlord does not seek reimbursement.**

**f. A tenant shall promptly notify a landlord in writing if any sub-metering device is in need of repair or damaged, and a tenant agrees not to tamper with, remove, adjust, tinker, damage, injure, destroy or impair any sub-metering system or device.**

**g. A landlord shall promptly repair or replace any damaged sub-metering system, and such repair or replacement shall be completed by a plumber or electrician licensed in New Jersey.**

**h. A landlord must contract with a third-party vendor, such as a sub-metering company, to provide "customer support" for tenants that have questions regarding the sub-meters in his or her unit.**

**i. In order to confirm that tenants are paying for their own apartment's electricity, after the sub-meter is installed, all electrical appliances and devices in the apartment will be turned-off during a short period of time to**

**determine whether there is zero consumption. If the consumption is zero, the sub-meter is only monitoring usage in a particular apartment (i.e. there are no issues with cross-wiring). If the sub-meter detects consumption, the Landlord shall not seek reimbursement from a tenant until such time that the sub-meter detects zero consumption as described above. Similar protocols could be followed to confirm zero consumption in connection with gas and water sub-meters.**

**j. Prior to the installation of any sub-meters, a landlord must notify all tenants of the sub-metering proposal in writing, with at least 48 hours notice of when the sub-meter(s) will be installed and the zero consumption testing conducted.**

5. The combination of the Existing Landlord Tenant Regulation and the Additional Safeguards provide a common sense approach and sufficient framework to govern the proposed sub-metering program for water, gas, and electric service.

6. The Board has existing Regulations governing many of the issues that would arise in a sub-metering program and these Regulations could provide the basic framework for an Order implementing water, gas and electric sub-metering in New Jersey. Among other things, the following Regulations could provide a framework regarding sub-metering in existing apartment buildings:

a. Meters: The Board has regulations in place that govern ownership of utility meters and equipment and location of meters that adequately provides a framework of guidance for a sub-metering program. See N.J.A.C. 14:3-4.1 and N.J.A.C. 14:3-4.2.

b. Testing of Meters: The Board's regulations have a comprehensive methodology for testing utility meter testing equipment. See N.J.A.C. 14:3-4.4. The regulations also provide that each customer is entitled to a free meter test once every 12 months and provides a comprehensive methodology for meter testing and billing disputes. See N.J.A.C. 14:3-4.5. Additionally, N.J.A.C. 14:9-4.1 provides for water meter testing and requires that water meters must conform to the selection, installation, testing and maintenance (M6), which is published by the American Water Works Association ("AWWA"), which is incorporated in the Board's Regulations by reference, as amended and supplemented and can be found at http://www.AWWA.org. To the extent that the AWWA has guidelines for meters that service lower flow water lines and smaller meter sizes, the AWWA would be an appropriate standard for sub-meters. As it is the Petitioner's understanding that the AWWA may not have standards for smaller, lower flow meters, the Petitioner suggests that the Board look to the appropriate

standards promulgated by the American Society of Mechanical Engineers (ASME). Additionally, N.J.A.C. 14:6-4.1 provides for gas meter testing, including standards for bell type provers, which must be calibrated according to ANSI B109, which is incorporated in the Board's Regulations by reference, as amended and supplemented, and can be found at www.ansi.org. To the extent that ANSI does not have standards for gas sub-meters, the Petitioner suggests that the Board look to appropriate standards promulgated by other organizations. Likewise, N.J.A.C. 14:5-4.1 – 4.3 provides for electric meter testing and determination of accuracy.

c. Adjustments to Bills: The Board's regulations have a comprehensive methodology for adjustment of charges for meter error. This comprehensive methodology provides ample guidance for a new sub-metering program. See N.J.A.C. 14:3-4.6.

d. Bills and Payments for Service: N.J.A.C. 14:3-7.1 provides for the method of billing and other general provisions. N.J.A.C. 14:3-7.2 prescribes a form of bill for meter service that would seem to generally apply to submetering. It includes common sense items that have previously been proposed by Petitioner including meter readings at the beginning and end of the billing period, the date on which the meter is read, the kind and number of units measured and applicable rate schedule, etc.

e. The Board's Regulations prescribe the methodology to express and resolve complaints regarding billing service. See N.J.A.C. 14:3-7.6. Landlord's billing companies will have methodologies in place to resolve complaints regarding the sub-metered water, gas and electric service.

7. Any sub-metering program would, under Existing Landlord Tenant Regulation, need to be in writing and signed by both the landlord and tenant to be enforceable. In the event of dispute, like other disputes in the landlord tenant context, a judicial safety net already exists to protect the rights of the landlord and tenant alike.

8. Many of the controversial components in prior sub-metering policy discussions dealt with rent reductions following the initiation of a sub-metering program. The apartment industry in New Jersey is both tightly regulated and highly competitive. Nintey-seven municipalities have rent control regulations and more than two thirds of all apartment units in New Jersey are located in municipalities with rent control. Where there is rent control, tenants are entitled to rent reductions whenever there are reductions in services; each municipality establishes the procedures a landlord must follow when reducing services. Where there is no rent

control, the rent for an apartment is negotiated between landlords and tenants in a competitive marketplace. The utilities that are included in rent or separate from rent are known by both prospective and current residents. Market rents, therefore, factor in the provision of utilities and would adjust following the initiation of a sub-metering program that removes a previously included utility.

## H. CONCLUSION

1. Based on the above, Petitioner is seeking a ruling that landlords be permitted to sub-meter water, gas and electricity in existing apartment buildings, pursuant to the Additional Safeguards, the Board's Regulations as applicable, and common sense, in order to further increase conservation of critical resources in New Jersey.

2. If the Board has concerns that Existing Landlord Tenant Regulations, coupled with the Additional Safeguards, may be insufficient to regulate sub-metering in existing apartment buildings, Petitioner suggests that simple guidelines based upon existing Board Regulations of utility meters and providers be ordered by the Board.

Respectfully submitted,
ARCHER & GREINER, PC
Attorneys for Petitioner,
NEW JERSEY APARTMENT ASSOCIATION

Dated: 6/19/17

By: _____
Michael F. Floyd, Esquire

**STATE OF NEW JERSEY** :

: **SS.** **VERIFICATION**

**COUNTY OF** MIDDLESEX :

David Brogan, being duly sworn according to law, upon his oath, deposes and says:

1. I am the Executive Director of the New Jersey Apartment Association, the Petitioner.

2. I am familiar with the contents of the foregoing Petition and am authorized to make this Affidavit on behalf of the Petitioner.

3. The statements made in the foregoing Petition are true to the best of my knowledge, information and belief.

David Brogan

Sworn to and subscribed to before me this 16 day of June, 2017.

KELLY K. RYAN
NOTARY PUBLIC
STATE OF NEW JERSEY
ID # 2373082
MY COMMISSION EXPIRES MAY 30, 2018

Kelly K. Ryan
NOTARY PUBLIC

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## LIST OF EXHIBITS