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March 24, 2023

VIA ELECTRONIC FILING

Hon. Michelle L. Phillips
Secretary to the Commission
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

Re: Case _____ - Petition of West Development B, LLC for a Declaratory Ruling Concerning Whether Use of the Daikin VRV IV Heat Recovery System at 60 Wharf Drive, Brooklyn, NY Would Constitute Electric Submetering and Require Approval Pursuant to Part 96

Dear Secretary Phillips:

On behalf of West Development B, LLC, attached for filing please find the *Petition of West Development B, LLC for a Declaratory Ruling Concerning Whether Use of the Daikin VRV IV Heat Recovery System at 60 Wharf Drive, Brooklyn, NY Would Constitute Electric Submetering and Require Approval Pursuant to Part 96*. Please contact me with any questions.

Very truly yours,

ADAM T. CONWAY

Adam T. Conway, Esq.
Partner

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Petition of West Development B, LLC
for a Declaratory Ruling Concerning Whether
Use of the Daikin VRV IV Heat Recovery System
At 60 Wharf Drive, Brooklyn, NY Would Constitute
Electric Submetering and Require Approval
Pursuant to Part 96**

Case No. _____

**PETITION OF WEST DEVELOPMENT B, LLC
FOR A DECLARATORY RULING**

Dated: March 24, 2023

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**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

**Petition of West Development B, LLC
for a Declaratory Ruling Concerning Whether
Use of the Daikin VRV IV Heat Recovery System
At 60 Wharf Drive, Brooklyn, NY Would Constitute
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PRELIMINARY STATEMENT

Pursuant to Part 8 of the New York State Public Service Commission’s (“Commission”) Rules and Regulations (16 NYCRR § 3.5), West Development B, LLC (“Petitioner”), the owner and developer of a new 40-story, 554-unit residential tower located at 60 Wharf Drive, Brooklyn NY 11222, (the “Building”), hereby files this Petition for a Declaratory Ruling requesting the Commission to declare that Petitioner’s proposed apportionment of residential heating and cooling usage at the Building, using the Power Proportional Distribution (“PPD”) software in conjunction with the Daikin System (as described in more detail herein), does not constitute electric submetering and does not require Commission approval pursuant to 16 NYCRR Part 96.

REQUEST FOR DECLARATORY RULING

A. The Daikin System

The Building is currently under construction and scheduled for completion in the first half of 2023. This petition, in particular, requests a ruling with respect to Petitioner’s plans for apportioning heating and cooling usage to tenants within the residential units in the Building. Specific to this petition, the Building will utilize a variable refrigerant flow (“VRF”) heat pump system manufactured by Daikin Industries to provide heating and cooling within each residential

unit. The specific system that the Building will utilize is the Daikin VRV IVx Heat Recovery system (the “Daikin System”).

The Daikin System is a state of the art, energy efficient VRF system capable of providing simultaneous cooling and heating to residential units. It utilizes inverter-driven compressors, an energy saving technology that eliminates wasted operation by automatically adjusting to changing conditions so as to use only the amount of energy needed to satisfy tenant demand for heat or air conditioning. Compared to non-inverter type air conditioners, air conditioners with inverters have less power loss and can save 30% more in energy and increased energy efficiency.¹

The Daikin System at the Building consists of 150 outdoor condensing units located on the Building roof, connected to the indoor air handling units (“AHUs”). Up to 64 AHUs can be served by each one outdoor condensing unit. The outdoor condensing units will be connected to dedicated distribution panels that will be separately metered so as to measure only the energy usage by the condensing units. The indoor AHUs in each individual apartment unit provide the actual heating and cooling within each unit and each AHU will be connected to the individual apartment’s electrical panel. Electricity usage within individual apartments, inclusive of the electricity consumed by the AHUs, will be directly metered by Con Edison. Petitioner will not install any electric meters in the individual apartment units.

B. The PPD Software

Petitioner plans to apportion the heating and cooling usage at each individual apartment based on each unit’s proportional energy usage of the rooftop compressor to which the individual unit AHU is connected. To calculate this proportional energy usage, the Daikin System utilizes a

¹ <https://daikincomfort.com/why-daikin/technology-and-innovation>

software function known as Power Proportional Distribution (“PPD”), which provides users with a calculated apportionment of the total power consumption by the individual indoor AHUs.

Put another way, the PPD software apportions total outdoor condenser power consumption back into the respective indoor units that are served by those outdoor units. The PPD software improves upon the more-common apportionment method of simple run-time by using the AHUs’ actual operational parameters to determine each AHU’s capacity relative to the AHUs on a shared condensing unit system. The PPD software mathematically calculates, in 20-second increments, each AHU’s portion of outdoor unit total power consumption based upon certain data points that are measured by software included as part of the Daikin System. These data points include the AHU size, refrigerant expansion valve position (e.g., how far the valve is open) to measure the refrigerant flow, and the suction air temperature within each AHU. These data points are then used to proportionally allocate the condensing unit’s power consumption among the connected AHUs.

The Daikin System, with the PPD software, will communicate the proportional usage data to Applicant. Applicant will utilize the proportional usage data to apportion the total charges associated with the condenser usage, in order to derive each unit’s monthly charges for their respective heating and cooling usage. Applicant will then distribute monthly bills to each unit setting forth the applicable monthly heating and cooling charges. As noted, the electricity usage within each residential unit will be directly metered by Con Edison and residents will receive a separate bill direct from Con Edison for their in-unit electricity usage.

C. The Commission Previously Determined that a Functionally Identical System Did Not Constitute Electric Submetering and Did Not Require Commission Approval Pursuant to 16 NYCRR Part 96

In Case 11-E-0513, the Commission declared that the proposed use of a similar VRF system manufactured by Mitsubishi Electric & Electronics USA, Inc. (the “MEEU System”) at a residential building in Brooklyn, New York did not constitute electric submetering and did not require Commission approval pursuant to 16 NYCRR Part 96.² The MEEU Ruling noted the following characteristics of the VRF system at issue in that case:

1. The MEEU System was a VRF system that consisted of outdoor condensing units on the roof of the building and indoor AHUs.
2. The indoor AHUs in each individual apartment unit were connected to the individual apartment’s electrical panel, with individual apartments separately metered by Con Edison.
3. The MEEU System measured the “run time” of each AHU and used this “run time” to proportionally allocate the energy usage of the rooftop compressor associated with the AHUs it served.³

As described above, the Daikin System and the associated PPD software is functionally identical to the heating and cooling system, and the allocation methodology, that was considered in Case 11-E-0513, in which the Commission declared that the heating system and usage allocation methodology at issue did not constitute electric submetering and did not require Commission approval pursuant to 16 NYCRR Part 96. The only difference between the two cases is that the MEEU System proportionally allocated the rooftop compressor usage solely via the measured “run time” of each AHU, while in this case the Daikin System and PPD software uses several factors – including AHU size, refrigerant flow rate, and suction air temperature – to derive the proportional

² See Case 11-E-0513, Petition of Mitsubishi Electric & Electronics USA, Inc. for a Declaratory Ruling, Order Granting Declaratory Ruling (issued January 23, 2012) (“MEEU Ruling”).

³ See MEEU Ruling at 2-3

usage of each individual AHU. For both the MEEU System and Daikin System, however, the end result is the same – individual units are charged for their heating and cooling usage based on their proportional usage of the overall energy usage of the outdoor compressor unit to which their AHU is connected. As noted, the Commission found in the MEEU Ruling that this type of billing arrangement did not constitute electric submetering and did not require Commission approval pursuant to 16 NYCRR Part 96.⁴

CONCLUSION

Therefore, for all of the foregoing reasons, and consistent with the MEEU Ruling, Petitioner respectfully requests that the Commission issue a ruling declaring that Petitioner’s proposed use of the Daikin System, with the PPD software, at 60 Wharf Drive, Brooklyn, New York, does not constitute electric submetering and does not require Commission approval pursuant to 16 NYCRR Part 96.

Dated: March 24, 2023
 Albany, New York

Respectfully submitted,

Adam T. Conway

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⁴ *Id.* at 4.