Agenda Date: 9/17/18
Agenda Item: 8E

STATE OF NEW JERSEY

Board of Public Utilities
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CLEAN ENERGY

IN THE MATTER OF MAGRANN ASSOCIATES' APPEAL FOR THE RESIDENTIAL NEW CONSTRUCTION PROGRAM INCENTIVE DETERMINATION REGARDING THE WESTVILLE SENIOR HOUSING PROJECT	)))))	ORDER DOCKET NO. QO18080903

Parties of Record:

Douglas McCleery, PE, MaGrann Associates
Stephanie Brand, Esq., Director, New Jersey Division of Rate Counsel

BY THE BOARD:

This Order memorializes action taken by the Board of Public Utilities ("Board") at its September 17, 2018 public meeting where the Board considered MaGrann Associates' ("MaGrann" or "Petitioner") appeal requesting a waiver from certain requirements of New Jersey Clean Energy Program's (NJCEP) Residential New Construction ("RNC") program and a determination that the Westville Senior Housing Project ("Project") should receive a modified Energy Efficiency (EE) incentive under NJCEP's Fiscal Year 2018 ("FY18") Residential New Construction ("RNC") Program's Certified Homes / Zero Energy Ready Home ("ZERH") EE incentive structure rather than the Multifamily High Rise ("MFHR") incentive structure.

BACKGROUND

The Board administers NJCEP pursuant to its authority under the Electric Discount and Energy Competition Act ("EDECA"), N.J.S.A. 48:3-49 to -109. NJCEP's programs are open to all commercial and industrial ("C&I") customers paying into the Societal Benefits Fund[1] and includes several programs that collectively offer incentives to residential and C&I persons to invest in EE and renewable energy ("RE") measures. NJCEP's RNC Program provides eligible participants financial incentives for including EE and/or RE in new residential construction. Applications for such incentives are submitted by certified "raters" who are typically engaged by the developer of a project to rate the project's EE so that the developer may then pursue incentives based on such rating.

[1] The Fund is comprised of the monies collected through the societal benefits charge ("SBC") paid by ratepayers. See N.J.S.A. 48:3-60.

NJCEP is administered by the Board's contractor, TRC Environmental Corporation ("TRC"); TRC has subcontracted the management of the RNC Program to CLEAResult Consulting Inc. ("CR"). In that role, among other responsibilities, CR receives, reviews, and either approves or rejects applications for incentives through the RNC Program. Pursuant to NJCEP's Dispute Resolution Process, TRC provides services related to resolving disputes and/or appeals regarding decisions made by CR and the other NJCEP program managers.

PROCEDURAL HISTORY

On October 31, 2017, MaGrann, a rater in the RNC program, submitted a waiver from the FY18 RNC Program decision tree point to CR with respect to the Project. The decision point at issue provides that a project in which "each unit does [not] have its own heating, cooling, and domestic water heater" shall be processed through the MFHR incentive structure. See Attachment A. These incentives are significantly less than those provided through the ZERH incentive structure, which typically covers single-family and smaller multifamily homes. The FY18 decision tree does not provide a ZERH option for multifamily homes, such as the Project, in which each unit does not have its own heating, cooling and domestic water heater.

On November 2, 2017, CR denied MaGrann's request for the subject waiver, and on November 9, 2017 MaGrann utilized NJCEP's Dispute Resolution Process to appeal the denial to TRC ("TRC Appeal"). Petitioner submitted additional information to TRC in a letter dated December 14, 2017 ("December 14 Letter"), as well as in various electronic communications.

On May 9, 2018 MaGrann on behalf of RPM Development Group, submitted a formal application for the Project ("Application"), in which it again requested the more generous ZERH incentive. On June 6, 2018, the application was rejected just as the request for the waiver had been denied pursuant to the Multifamily Decision Tree contained in the Board-approved FY18 Compliance Filing. Because of the unusual nature of the appeal, TRC consulted with Board Staff about how to resolve the appeal and application, and Board Staff in turn determined to present MaGrann's request to the Board for consideration. The Board now considers the waiver request.[2]

PROJECT DESCRIPTION

The Project is located in Westville, Gloucester County. The Project will be financed by the New Jersey Housing Mortgage Financing Agency ("NJHMFA") and consists of 64 units in an all-electric four-story building. The Project would be the first multifamily ZERH project in New Jersey and would include a number of high efficiency features, including two particularly relevant to this appeal:

- variable Refrigerant Volume/Flow (VRV/VRF) heating and cooling that employs single condensers to service multiple apartments; and
- residential style heat pump water heaters that each service 2 apartments.

MaGrann submits that the condenser arrangement referenced above is necessary both to free up sufficient roof space for the photovoltaic panels and to reduce the number of roof penetrations to a level that would make Passive House Institute US (PHIUS) certification

[2] RPM and Mantua Urban Renewal Associates also submitted a petition to the Board regarding the project seeking a waiver from the New Jersey Board of Public Utilities ("Board") of Public Service Electric & Gas Company's ("PSE&G") electric Tariff provision related to master metering, specifically B.P.U.N.J. No. 15 Electric, Section 9.2.1. (BPU Doc. No. EW18050497)

achievable. The Photovoltaic (PV) RE is sufficient to meet 100% of its own energy needs (approximately 300 Kw), and it would be eligible for PHIUS certification.

The potentially applicable financial incentives for the RNC program are set forth in tables in the Board-approved FY18 TRC Compliance Filing. In the FY18 Compliance filing the Board adopted Tables 9 and 10 which set out the incentive alternatives discussed here.[3] While both apply to multifamily projects, Table 9 incentives generally apply to smaller multifamily residences; these include the ZERH incentives MaGrann seeks to have applied to the Project. Table 10 incentives apply to MFHR projects and it is these incentives which CR applied. The subject tables follow:

Table 9: FY18 Financial Incentives per Multi Family Unit for Code compliance through ERI pathway, ENERGY STAR Certified Homes, Zero Energy Ready Home, and Zero Energy Home + RE [excerpt].

HERS (Before Renewables)	Code compliance through ERI Pathway	ENERGY STAR Home	ENERGY STAR Home plus ERI path code compliance**	Zero Energy Ready Home	ZERH plus ERI path code compliance**	Zero Energy Ready Home + RE	ZERH + RE plus ERI path code compliance**
75		$625					
70		$750					
65		$875					
60		$1,000					
55	$750*	$1,500	$2,250*				
50	$750	$2,250	$3,000	$3,250	$4,000	$4,750	$5,500
45	$750	$3,625	$4,375	$4,625	$5,375	$6,125	$6,875
40	$750	$5,125	$5,875	$6,125	$6,875	$7,625	$8,375

Table 10: FY18 Financial Incentives for ENERGY STAR Multifamily High-Rise

Baseline	Savings Before RE	Baseline	Savings Before RE	Baseline	Savings Before RE	Incentive Per Unit
90.1-2007	25%	90.1-2010	20%	90.1-2013 App G 2010 OR 2013	15%	$1,250
	30%		25%		20%	$1,500
	35%		30%		25%	$1,750
	40%		35%		30%	$2,000
	45%		40%		35%	$2,250

See FY18 Compliance Filing, p. 91-92.[4]

[3] The Board approved a new FY19 TRC compliance filing which contained new tables and decision trees regarding the RNC program. However, the compliance filing notes that the new incentive structure and decision tree apply to projects registered on or after August 1, 2018. It goes on to explain that "Projects Registered prior to this date are eligible for the incentive applicable at the time of Enrollment" FY19 TRC Compliance Filing, Vol. 1, p. 10. "Registration" is defined as occurring when "an applicant creates an application in the portal and uploads all documents that are necessary for Enrollment." FY19 TRC Compliance Filing, Vol. 1, p. 10. Here, the Project was registered in FY18 and thus the incentive structure applicable in the FY18 compliance filing is applicable to this project.

[4] "The Home Energy Rating System (HERS) Index is the industry standard by which a home's energy efficiency is measured. It's also the nationally recognized system for inspecting and calculating a home's energy performance." https://www.resnet.us/hers-index .

For this Project, assuming[5] a 20% savings against the 90.1-2013 baseline, application of Table 10 for MFHR results in a projected incentive of $1,500 per unit or $96,000 for all 64 units.[6] The application of Table 9 produces incentives significantly higher. Four of the proposed units have a projected HERS Index of 45, resulting in eligible incentives of $4,625 each or $18,500 total. The remaining units have projected HERS Indices of 46-50, resulting in eligible incentives of $3,250 per unit or a total of $195,000. The application of Table 9 to the Project thus results in an estimated EE incentive of $213,504, almost 40% greater than the application of Table 10.

Averaging or blending the above-described incentive structures and calculating their average, results in a projected incentive of $154,752. This Order refers to the incentives available through this averaged incentive approach as "Blended". The subject incentives are recapped and summarized below:

EE Incentive Options: [7]

1. MFHR	$ 96,000, based on assumed 20% savings
2. Blended (midpoint)	$154,752 (the average of MFHR and ZERH)
3. ZERH	$213,504 (based on most units being below 50 HERS and a few being at or below 45 HERS)

In order to determine whether a RNC project is eligible for MFHR incentives or ZERH incentives, the Decision Tree attached hereto as exhibit A is utilized. CR correctly applied the MFHR (i.e. Table 10) incentives because the applicable FY18 RNC Program decision tree requires a project in which "each unit does [not] have its own heating, cooling, and domestic water heater" to be processed through the MFHR incentive structure, rather than through the Certified Homes incentive structure.

MaGrann admits that CR properly applied the FY18 Decision Tree but submits that it should be granted a waiver from that rule set forth in the attached decision tree for several reasons.

Petitioner first points to the version of the decision tree adopted in February 2017 by the United States Environmental Protection Agency ("USEPA"), Version 3.1. See Attachment B. Version 3.1 no longer includes the decision point based on the presence or absence of individual heating, cooling, and domestic water heaters.[8]

Second, MaGrann makes an argument for the higher incentives based on relative system costs. MaGrann argues that the lower MFHR incentives are based on the assumption that the cost of common HVAC and water heating system is lower than the cost of individual systems, while, by contrast, the Project's HVAC and water heating systems would actually cost more than individual systems. While acknowledging that the paired water heaters proposed would save $66,935 from the cost of 64 individual units, Petitioner notes that the total $515,220 cost of the

[5] It is necessary to use assumptions because MaGrann has not yet conducted a full MFHR analysis of the Project. The potentially applicable financial incentives for the RNC program are set forth in tables in a Board-approved Compliance Filing.
[6] These and all other incentive amounts shown in this Order are estimated; per Program rules, final incentive payments would be calculated based upon what is actually built.
[7] If RE is included, $96,000 (64 x $1,500) would be added to each of the above amounts.
[8] This decision tree was adopted by the Board in the FY19 compliance filing. The decision tree was accompanied by a modified incentive structure. Nevertheless, as discussed previously the FY19 Compliance Filing provides that the FY19 incentives apply only to "projects Registered on or after August 1, 2018."

installation proposed heating and cooling system represents an increase of $193,492 over the price of 64 individual systems. Taken together, these systems will cost $126,557 more than would typical individualized systems. Petitioner concludes that the Project should receive the higher ZERH incentives.

Lastly, MaGrann argues that the HERS Indexing used to set ZERH incentives is biased to the disadvantage of the Project and similar projects that contain units with relatively small floor areas; that the Residential Energy Services Network ("RESNET") the author of the HERS, is working to adjust its standards to address this issue; and that NJCEP should therefore consider a similar adjustment for the Project.[9]

BOARD STAFF ANLYSIS AND RECOMMENDATION

For the reasons that follow below Staff recommends that the Board grant MaGrann's requested waivers, but approve the Blended Incentive amount.

MaGrann has indicated that if the Project were to receive only the MFHR incentives, the incentives would "be insufficient to justify ZERH participation and the inclusion of renewable generation." The State would then lose the associated energy savings, as well as the demonstration and marketing value associated with the development of the first MF ZERH + RE project in New Jersey.

Additionally, the attributes of the Project's HVAC and domestic water heater ("DWH") systems fall somewhere between those of the typical single-family home and those of the typical Multi-Family home. The DWH systems service two dwelling units each, which is more than the typical single-family home but also far less than the typical MF home in which DWH systems typically serve the entire building or many of the units in it. Similarly, the Project's HVAC condensers each service multiple units but not the entire building.

Third, as shown in the column headed "$/LifeMMbtu" in the table below, the cost of the energy saved, a cost ultimately borne by ratepayers, would be $4.35 at MFHR levels, a cost just higher than that incurred for the savings in most EE MF homes but significantly lower than that incurred for most single family ZERH. On the other hand, if ZERH incentives were applied, that cost would be $9.68, higher than any cost incurred thus far in the RNC Program. As reflected in the table below, the Project will save significantly more energy than a MFHR building but still less than a typical single family ZERH home. However, if a blended incentive is applied, the cost would be $7.01. Thus Staff notes that cost of the blended incentives appears to be an appropriate incentive cost to pay for savings at the Project.

[9] Staff notes that the HERS rating affects only the incentives included in Table 9, such as ZERH. Thus, if adopted by NJCEP, such an adjustment would increase only the incentives available through the ZERH incentive structure and not those available through the MFHR structure, thereby resulting in an increased incentive without any increased energy savings. Finally, the adjustment has not yet been adopted by RESNET and, as such, cannot yet be adopted or even fully evaluated by Staff.

Recent All Electric Homes						
Type	Development	kWh saved	LifeMMbtu	Incentive	$/LifeMMbtu	Average HERS Index
	RPM/ Westville-MFHR	110,342	22,062	$96,000	$4.35	49
	-Blended (midpoint)	110,342	22,062	$154,752	$7.01	49
	-ZERH	110,342	22,062	$213,500	$9.68	49
MFHR	1	217,306	43,449	$82,000	$1.89	15%
MF	2	193,419	38,673	$147,375	$3.81	66
MF	3	64,596	12,915	$22,625	$1.75	72
MF	4	39,591	7,916	$24,500	$3.10	66
MF	5	13,001	2,599	$20,500	$7.89	74
				Average	$3.69	70
SF ZERH	6	gas/electric	1,128	$9,250	$8.20	43
SF ZERH	7	gas/electric	1,330	$12,250	$9.21	39
SF ZERH	8	14,000	2,799	$26,000	$9.29	42
				Average	$8.90	41

Consequently, granting some relief from the mechanical application of the current Decision Tree would be consistent with NJCEP's general purpose and intent of cost-effectively incentivizing the installation of EE measures. If the Decision Tree and Incentive Table 10 were to be applied mechanically and the project were required to strictly comply with the requirement for individual heating, it is likely RPM would not install the highly efficient measures. However, it likely would install it if an exception is partially or fully granted. Similarly, requiring full compliance with the Decision Tree would adversely affect the ratepayers in that they would lose the energy savings that would be achieved if the grant of an exception led to the approval of a Blended or ZERH incentive.

Finally, when USEPA rolled out the current Decision Tree at the February 2017 Residential Energy Systems Network (RESNET) Conference (http://conference2017.resnet.us/) USEPA acknowledged that EE program managers and administrators were likely to need to consider adjusting their eligibility and incentive structures in light of the change to the Decision Tree.[10] Thus, the Program's designers did not intend the new Decision Tree to be blindly applied to the FY18 RNC Incentive Structure. Second, the assumption that "high rise" projects experience lower costs than "low-rise" projects is not the only reason for the lower incentives provided to "high rise" projects. Rather, there are at least eight significant differences between the multifamily projects covered by the Certified Homes ZERH incentives and those covered by the MFHR incentives. Many of these factors, such as the treatment of common areas, support limiting the Project to the MHFR incentive.[11] Accordingly, the single factor of relative HVAC/water heating expense does not make the Project automatically eligible for the ZERH incentives.

[10] Indeed, CR and TRC are considering including the new Decision Tree, as well as appropriately adjusted eligibility and incentive structures, as part of the new Multifamily Program they are designing in coordination with Board Staff for the Board's review and consideration for FY19.

[11] See "Making It Simpler for Multifamily Projects to Earn the ENERGY STAR," (USEPA, November 2016), p.9 https://www.energystar.gov/sites/default/files/asset/document/Making_it_Simpler_for_Multifamily_Projects_to_Earn_the_ENERGYSTAR_508.pdf.

Based on the following Staff believes that the Board should utilize the Blended Mid-Point Incentive amount in granting a waiver for this project. Consequently, Board Staff recommends that the Board authorize CR to grant the requested waiver from the FY18 Decision Tree and the FY18 Table 10 incentives and further authorize CR to utilize the Blended Incentive structure for the Project.

DISCUSSION & FINDINGS

In considering a request for a waiver of from program requirements, the Board has applied the two-prong analysis provided for in N.J.A.C. 14:1-1.2(b)(1). See I/M/O the New Jersey Smartstart Buildings Program – Request for Exemption (Westerly Road Church), Non-Docketed Matter (September 13, 2012) (granting request); see also I/M/O Request of Indoor Sports Pavilion for a Waiver of N.J.A.C. 14:8-4.3(j), Docket No. EG12060504V (August 15, 2012)(denying request). In that analysis, the Board first considers whether the applicant's request is in accordance with the general purpose and intent of the program requirements. The Board then considers whether requiring full compliance with the requirements "would adversely affect the ratepayers of a utility or other regulated entity, the ability of said utility or other regulated entity to continue to render safe, adequate and proper service, or the interest of the general public." N.J.A.C. 14:1-1.2(b)(1).

The Board has carefully considered the factual record including MaGrann's submissions and arguments, CR's determination, and Staff's recommendations. In the present case, the general purpose and intent of the Residential New Construction program requirements is to incentivize the installation of EE measures in a cost-effective manner. If the FY18 Decision Tree and Incentive Table 10 were to be applied as written, it may inhibit an otherwise likely EE participant from installing cost-effective EE measures. Thus, The Board **FINDS** that Petitioner's request for an exemption from the program rules accords with their general purpose and intent. However, application of a Blended Incentive, better recognizes the innovative nature and extent of the energy savings achieved and keeps their cost comparable to that of other energy efficiency incentives awarded by the Program than granting full incentives in this case.

Turning to the second prong of the analysis, the Board notes that the Project, if completed as designed, would be the first Zero Energy multifamily building to incorporate renewable energy in the State. Aside from the benefit to other ratepayers of averting additional demand on the distribution system, the positive publicity and potential spur to further innovation and to similarly ambitious projects could advance energy efficiency in New Jersey housing overall. Such an advance would produce a long-term benefit, both environmental and financial, to the ratepayers, as well as spurring the energy efficiency market in New Jersey with all of the associated economic benefits. To deter the completion of the Project by requiring strict compliance with the FY18 decision tree and Table 10 risks losing these benefits for the ratepayers and the State. The Board **FINDS** that strict compliance with the FY18 RNC Program Guide would hinder the achievement of those benefits.

In sum, the Board **FINDS** that approving the Blended Incentive would be consistent with NJCEP's general purpose and intent. The Board **FURTHER FINDS** that full compliance with the FY18 Program requirements would adversely affect both the electric utility's ratepayers and the interest of the general public. Accordingly, the Board **HEREBY GRANTS** the Project a waiver in part from the application of the FY18 Decision Tree and FY18 Incentive Table 10 and **AUTHORIZES** CR to consider an application seeking an incentive for the Project utilizing the Blended Incentive structure. Finally, the Board **HEREBY AUTHORIZES** CR to approve and pay such incentive if and when CR determines the Project has met all other applicable FY18 Program requirements.

This Order shall be effective on September 27, 2018.

DATED: 9\17\18

BOARD OF PUBLIC UTILITIES
BY:

JOSEPH L. FIORDALISO
PRESIDENT

MARY-ANNA HOLDEN
COMMISSIONER

DIANNE SOLOMON
COMMISSIONER

UPENDRA J. CHIVUKULA
COMMISSIONER

ROBERT M. GORDON
COMMISSIONER

ATTEST:

AIDA CAMACHO-WELCH
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities.

ATTACHMENT A

EPA ENERGY STAR
Residential Multifamily New Construction Programs

What qualifies as Residential?

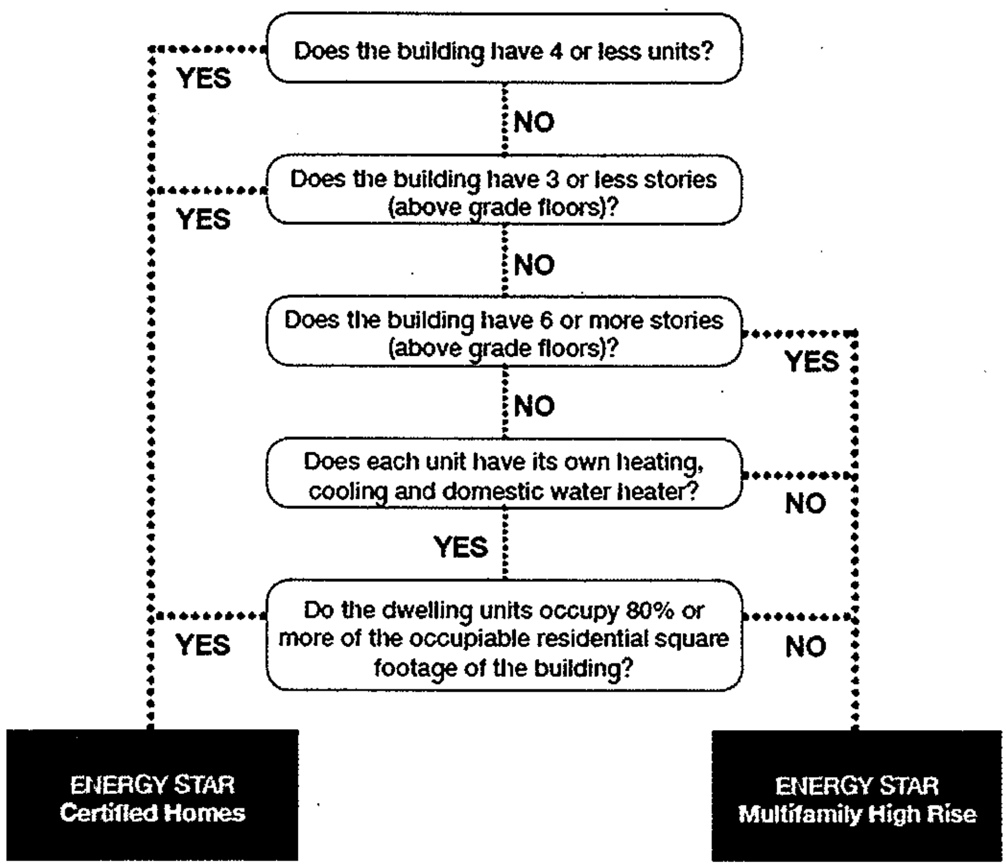
The primary use of the building must be for residential purpose, i.e. the residential and residential associated common area must occupy more than 50% of the building's occupiable square footage. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, and residential recreation rooms. This also includes offices used by building management, administration or maintenance and all special use areas located in the building to serve and support the residents such as day-care facilities, gyms, dining halls, etc. It does not include garage spaces.

What qualifies as New Construction?

New Construction projects can include significant gut rehabilitations when defined as a change of use, reconstruction of a vacant structure, or when construction work requires that the building be out of service for at least 30 consecutive days. The primary use of the building must be for residential purpose, i.e. the residential and residential associated common areas must occupy more than 50% of the building's occupiable square footage. For mixed used buildings, exclude the retail/commercial area when determining the square footage of the building.

New construction of motels/hotels, nursing homes, assisted living facilities or dormitories, are considered commercial facilities and do not qualify under the Residential Multifamily New Construction program. Learn more about the ENERGY STAR new construction program for commercial buildings at: *www.energystar.gov/DesignToEarn*. For more information about ENERGY STAR in existing commercial buildings visit the ENERGY STAR Buildings and Plants page at *www.energystar.gov/buildings*.

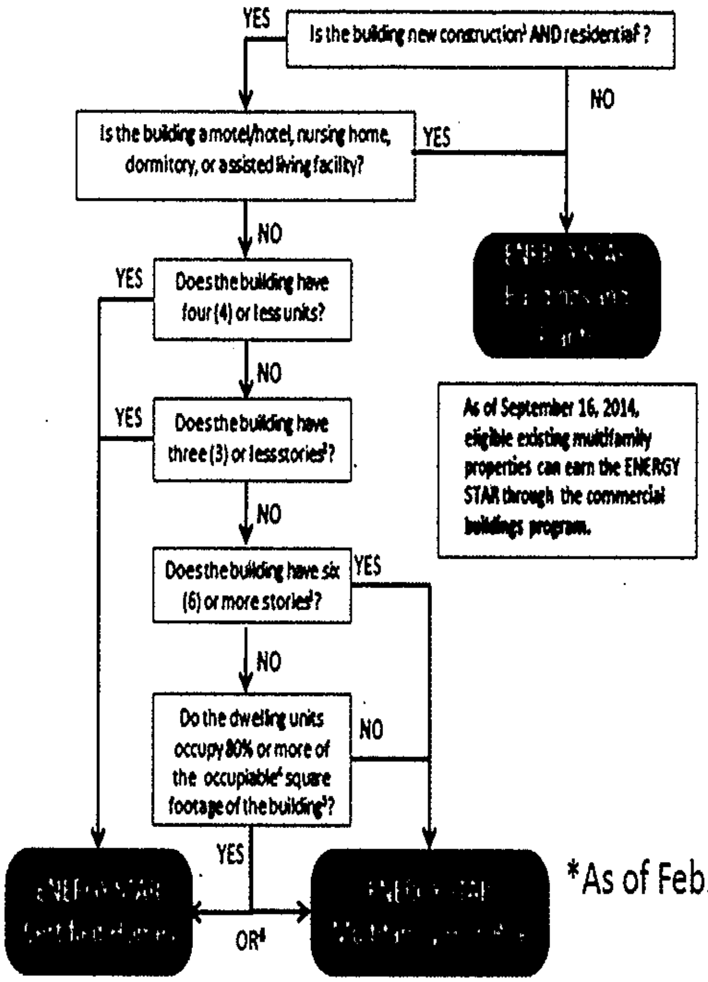
If your multifamily building qualifies as *both* New Construction *and* Residential, the following decision tree can help you determine which ENERGY STAR program is right for you.



FY18 Compliance Filing, p. 131.

ATTACHMENT B

ENERGY STAR Multifamily Program Decision Tree*



*As of February 2017

EPA

www.energystar.gov/mfhr/eligibility

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IN THE MATTER OF MAGRANN ASSOCIATES' APPEAL FOR THE RESIDENTIAL NEW CONSTRUCTION PROGRAM INCENTIVE DETERMINATION REGARDING THE WESTVILLE SENIOR HOUSING PROJECT - DOCKET NO. QO18080903

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