Legislation Details (With Text)

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Title:	Receive the report and concur with PUAB recommendation to fund the 2023 Renewable Energy Program at the 2022 revenue level and dedicate any underspend to installing solar projects on City of Naperville facilities		
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Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:
Receive the report and concur with PUAB recommendation to fund the 2023 Renewable Energy Program at the 2022 revenue level and dedicate any underspend to installing solar projects on City of Naperville facilities

DEPARTMENT: Electric Utility

SUBMITTED BY: Brian Groth, Director

BOARD/COMMISSION REVIEW:
On November 10, 2022 the Public Utility Advisory Board (PUAB) unanimously recommended approval for the update on the Renewable Energy Program and proposed program changes for 2023.

BACKGROUND:
In 2004 the City Council approved the Renewable Energy Program (REP) as a mechanism for Electric Utility customers to monetarily support renewable energy. The program primarily procured Renewable Energy Certificates (RECs) to support the development and continued operation of new renewable energy sources.

In March of 2020, the City Council and PUAB approved expanding the REP to include residential energy efficiency programs such as window and attic insulation upgrades as well as an increase in the incentive for residential customers wishing to install solar to $300/kilowatt (kW), with a maximum grant of $3,000 for a homeowner. Additionally, those customers installing Level 2 or Level 3 electric vehicle chargers could now qualify for a $500 grant if the participant agreed to charge their vehicle between the hours of 11 p.m. and 7 a.m. These changes focused on lessening load on the electric

grid and improving efficiency of homes.

In 2021, the Electric Utility partnered with stakeholders, including the City's Sustainability Coordinator and members of NEST, to discontinue the procurement of REC's. Instead, these funds would be used as grants for Utility customer grants. At the same time, A/C tune-ups, and blower motor upgrades were added to the grant program.

In 2022 REP participation increased by 10%. It now has just over 3,000 participants with annual revenue of approximately $260,000.

The fund's cash balance is expected to be approximately $500,000 at the end of 2022.

DISCUSSION:

Renewable Energy Program Update

The City Council implemented changes to the REP in March of 2020 with the goals of making meaningful progress in community generated renewable energy and increasing energy efficiency of homes while reducing the large REP fund balance that had accrued. Significant progress has been made on these goals to date.

The REP budget as well as current spend (since March of 2020) can be seen in the chart below.

Program	Budgeted CY2020	Awarded CY2020	Number of Projects Awar
Commercial Solar- $50K Max	$50,000	$50,000	1
Commercial Energy Efficiency- $20K Max	$100,000	$0	0
Residential EVCS- $500	$10,000	$4,198	9
Residential Window Replacement- $300 per Window, $3K Max	$70,000	$67,352	26
Residential Attic Insulation- $1/SQFT- $3K Max	$30,000	$78,544	73
Residential solar- $300/kW- 10kW Max	$150,000	$245,890	114
Totals	***$410,000***	***$445,984***	***223***

Program	Budgeted CY2021	Awarded CY2021	Number of Projects Awar
Commercial Solar- $50K Max	$100,000	$0	0
Commercial Energy Efficiency- $20K Max	$50,000	$0	0
Residential EVCS- $500	$10,000	$21,435	47
Residential Window Replacement- $300 per Window, $3K Max	$65,000	$218,079	85
Residential Attic Insulation- $1/SQFT- $3K Max	$35,000	$173,528	146
Residential solar- $300/kW- 10kW Max	$150,000	$412,885	194
Totals	***$410,000***	***$825,927***	***472***

Program *	Budgeted CY2022	Awarded CY2022	Number of Projects Awar
Commercial Solar- $50K Max	$50,000	$0	0
Commercial Energy Efficiency- $20K Max	$0	$0	0
Residential EVCS- $500	$5,000	$17,478	41
Residential Window Replacement- $300 per Window, $3K Max	$100,000	$53,700	31
Residential Attic Insulation- $1/SQFT- $3K Max	$50,000	$109,941	89
Residential solar- $300/kW- 10kW Max	$250,000	$57,570	27
Residential Furnace Blower Motor Upgrade ($100 per applicant)	$5,000	$0	0
Air Conditioning Unit Tune-Up (once every three years - $250 per applicant $250	$20,000		10
Totals	***$480,000***	***$238,939***	***198***

* *Data as of 08/31/2022 for residential and non-residential rebates.*

As the data above shows, the most projects and grant dollars were awarded in 2021. Overall project quantity as well as dollar spend are down in 2022. Supply chain constraints as well as overall economic conditions are believed to be the driver for this decline. Staff will continue to monitor and promote these programs with an emphasis on air sealing of homes. Air sealing is already covered as part of the insulation rebate program but, as discussed in the Utility's meeting with NEST, this is likely one of the best upgrades a homeowner can make related to energy efficiency.

In 2022, the Electric Utility released a Request for Proposal to install roof mounted solar panels at select locations through the city that meet roof age and other criteria. Utility staff then worked with the Sustainability Coordinator and NEST to identify the best locations to install arrays and ultimately recommended the installation of arrays at three electric utility substations totaling 63.3kW of capacity to Council. Council awarded the $214,000 procurement to GRNE Solar, however, due to supply chain challenges the utility now expects these array installations to be completed by Q1 2023.

2023 Renewable Energy Program Changes

To ensure the sustainability of the REP program, the Utility is recommending that grant funding be set at an amount equal to the previous year's revenues from the REP.

It is expected that grant expenditure will be under budget at the end of this year. While NEST and the Utility agree that the most efficient way to deploy REP dollars is to provide grants to utility customers, another way to make impactful change is through the Utility increasing the size and number of renewable energy installations on City buildings.

To promote this expansion of solar in the City of Naperville, the Utility is proposing that any budgeted underspend in a fiscal year be utilized by the Utility to fund renewable energy projects installed on City facilities the following calendar year.

The Utility will continue to use the Sustainability Coordinator, NEST, and the City's new Sustainability Specialist as resources when deciding to increase the size of an array or to add a new array to a highly visible City owned building. Additionally, the Utility will revise its current forms and reimbursement documents to reflect solar rebates are available to those customers that choose to lease their arrays (based on a fixed monthly fee and not a charge per kWh) instead of purchase them outright.

FISCAL IMPACT:

2023 REP grant funding will be established at 2022 revenue levels, utilizing any budgeted and unawarded 2022 dollars to fund 2023 Utility solar energy projects. Staff will allocate grant funds as appropriate across project types based on historical spend with the goals of increasing solar production in the City and promoting energy efficiency through insulation and other upgrades. The program will expand availability of existing solar incentives to those who chose to lease their arrays (based on a fixed monthly fee and not a charge per kWh).