SENATE BILL 472
(60MW EXPANSION OF COMMUNITY REMOTE NET METERING) MORE COSTLY THAN OTHER COMMUNITY SOLAR OPTIONS

April 13, 2021

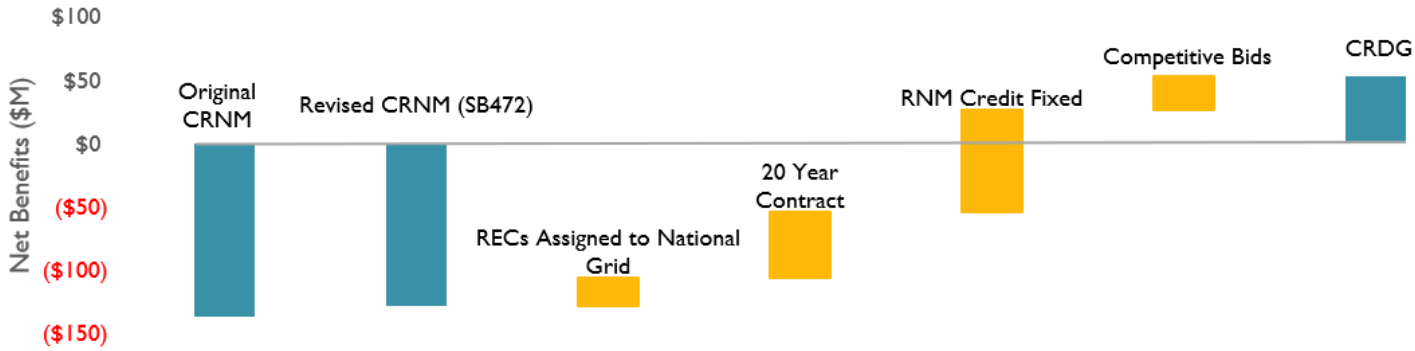
About SB472

Rhode Island Senate Bill 472 (SB472) proposes to expand the Community Remote Net Metering (CRNM) program by 60MW beyond its 30 MW statutory cap.[1] CRNM is one of several renewable energy financing programs available to developers in Rhode Island. CRNM "virtually" links customers to large-scale projects when customers do not have solar on the roof of their homes or businesses. However, CRNM customers do not consume any of the renewable energy and CRNM project owners do not sell any electricity, renewable energy certificates, or any energy product to their customers. Rather, the CRNM customer receives electric bill credits that reduces his or her monthly electric bill. While ratepayers who subscribe to this program receive a discount on their bills, all ratepayers reimburse National Grid for the full cost of this program, including the lost revenue from the discounted bills. In this regard, CRNM does not save money for the general body of ratepayers.

Synapse's Analysis

On behalf of Rhode Island's Division of Public Utilities and Carriers, Synapse Energy Economics, Inc. (Synapse) analyzed the costs and benefits of developing another 60 MW of renewable energy under the revised CRNM program in SB472, as well as other options. Synapse compared the net benefits of the original CRNM program, the revised CRNM in SB472, and the Community Remote Distributed Generation (CRDG) program. Synapse also analyzed changes in the net benefits from several additional program design changes to the revised CRNM program in SB472 including: (1) assigning RECs to National Grid instead of to developers, (2) shortening the contract period from 25 to 20 years, (3) holding the renewable net metering credit (RNM) constant over time instead of allowing it to increase, and (4) using competitive bids to set the RNM credit rather than a percentage of the small commercial electric rate.

Figure 1. Net Benefits of CRNM and CRDG Programs



Synapse finds that Rhode Island could implement the same amount of community solar in a much more cost-effective way for ratepayers. While the revised CRNM program in SB472 improves slightly upon the original CRNM program, the program is not cost-effective with a cost of $385 million and negative net benefits.[2]

Further adjustments to the CRNM program's design can make the program cost-effective. The CRDG program, which is cost-effective with net benefits of $50 million, provides the same amount of community solar as the revised CRNM program in SB472 but at a much lower ratepayer cost of $195 million.

[1] Rhode Island SB472. Introduced March 4, 2021. Available at: https://fastdemocracy.com/bill-search/ri/2021/bills/RIB00020598/
[2] All costs are in 2021 net present dollars.

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Table 1 summarizes the program design changes Synapse analyzed. The column names match those used in Figure 1.

Table 1. Summary of Program Design Changes

Program Design Changes	Original CRNM	Revised CRNM (SB472)	National Grid RECs	20 yr. Contract	RNM Credit Fixed	CRDG
Capacity assigned to	Developers	Nat. Grid.	Nat. Grid.	Nat. Grid.	Nat. Grid.	Nat. Grid.
RECs assigned to	Developers	Developers	Nat. Grid.	Nat. Grid.	Nat. Grid.	Nat. Grid.
Contract period	25 yrs.	25 yrs.	25 yrs.	20 yrs.	20 yrs.	20 yrs.
RNM credit over time	Increases	Increases	Increases	Increases	Fixed	Fixed
RNM credit based on	C-06 rate	C-06 rate	C-06 rate	C-06 rate	C-06 rate	Competitive Bids
LMI customers	Very Few	20%	20%	20%	20%	Very Few

Capacity assigned to: Identifies who receives the revenues from capacity sales into the ISO-NE Forward Capacity Market. In the original CRNM program, project developers receive the revenues. In the revised CRNM program in SB472 and all other analyses performed by Synapse, National Grid ratepayers receive the revenues – the benefits of which are passed onto ratepayers.

RECs assigned to: Identifies who receives the revenues from renewable energy credits (REC) sales. In the original and revised CRNM programs, project developers receive the revenues. In all other analyses performed by Synapse, National Grid receives ownership of RECs to reduce compliance costs with the Renewable Energy Standard, the benefits of which are passed along to ratepayers.

Contract period: Identifies the timeframe over which the RNM credit will persist. In the original and revised CRNM programs, the contract period is 25 years. Synapse analyzed a reduction in the contract period to 20 years, to match the one for the CRDG program.

Renewable net metering (RNM) credit over time: Identifies whether the RNM credit can change over time and how it may change. In the original and revised CRNM programs, the credit will change over time as the small commercial customer rate changes over time and will most likely will increase. Synapse's analyses fix the charge to the one in place when customers subscribe to the program, as is done in the CRDG program.

RNM credit based on: The construct of the credit used to compensate renewable project developers and provide bill savings for subscribers. In the original and revised CRNM programs, the credit is defined as the sum of the standard offer charge, the transmission charge, distribution charge, and transition charge of National Grid's small commercial customer electric rate (the C-06 rate). The CRNM subscription charge is set to equal 90 percent of the RNM credit and is used to compensate the renewable project developers. The remaining 10 percent of the RNM credit is used to provide bill savings for subscribers. Synapse's analyses base the RNM credit on competitive bids provided by renewable energy project developers instead, as is done for CRDG.

LMI customers: Identifies any minimum requirements for participation by LMI customers. The original CRNM program and the CRDG program have no minimum requirement for LMI customer participation, so very few of these customers will likely participate. The revised CRNM program improves upon the original by requiring 20 percent participation by LMI customers. The 2021 CRDG filing before the PUC also includes a ¢/kWh adder for projects that provide at least 20% of their output to LMI customers enrolled in the A-60 electric rate.[3] Synapse's analyses do not include this adder because the impacts are likely to be very small and have not yet been approved by the PUC. Nonetheless, Synapse acknowledges the importance of the potential qualitative benefits of this modification.

This analysis is based on Synapse's original analysis, titled *Benefit-Cost Analysis of the Rhode Island Community Remote Net Metering Program* (released March 10, 2021), available at: https://www.synapse-energy.com/project/technical-and-policy-support-rhode-island. As this analysis updates some of the inputs to the original analysis, the cost and benefit outputs are not the same.

[3] National Grid, *2021 Renewable Energy Growth Program Tariff and Rule Changes*, Direct Testimony of Ian Springsteel and Meghan McGuinness, November 13, 2020.