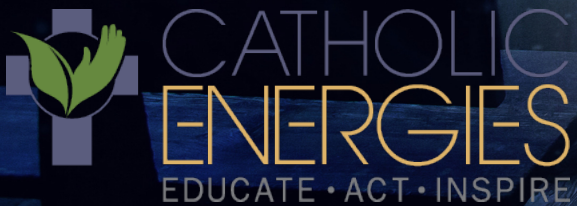


Season of Creation Webinar #1

A Powerful Opportunity for the Faith Community: Putting Our Faith into Action Through Renewable Energy Investments and Funding



September 13th, 2022



Catholic Climate Covenant™
Care for Creation. Care for the Poor.

Season of Creation Webinar #1

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The webinar is being recorded and a link to the recording will be sent to everyone who registered within the next 24-48 hours.



Please type your questions in the Q/A box. If you know who the question is directed to, please add that information to your question.

2022
**SEASON OF
CREATION
PRAYER**



Creator of All,
From your communion of love your Word went forth to
create a symphony of life that sings your praise.

By your Holy Wisdom you made the Earth to bring forth a
diversity of creatures who praise you in their being. You
called human beings to till and keep your garden. But we
turn in on ourselves and away from our co-creatures.

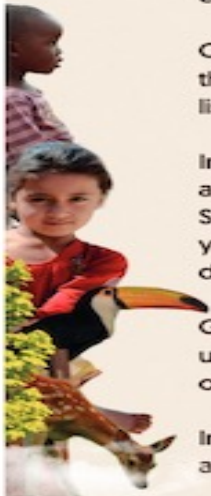
We fail to listen to the cries of the poor and the needs of the
most vulnerable. We silence the voices of those who hold
the traditions that teach us to care for the Earth. We close our
ears to your creative, reconciling and sustaining Word that
calls to us through the Scriptures.

Creation cries out as forests crackle, and animals alike flee
the fires of injustice that we have lit by our unwillingness to
listen.

In this Season of Creation, we pray that you would call to us,
as from the burning bush, with the sustaining fire of your
Spirit. Turn us from our inward gaze. Teach us to contemplate
your creation, and listen for the voice of each creature
declaring your glory.

Give us hearts to listen, enlighten us with your grace, and fill
us with the hope to quench the fires of injustice with the light
of your healing love that sustains our common home.

In the name of the One who came to proclaim good news to
all creation, Jesus Christ. Amen.



**SEASON OF
CREATION**



Listen to the
Voice of Creation
Season of Creation 2022

seasonofcreation.org



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**CATHOLIC
ENERGIES**
EDUCATE • ACT • INSPIRE

A Season of Creation Webinar #1

A Powerful Opportunity for the Faith Community: Putting Our Faith into Action Through Renewable Energy Investments and Funding



Jose Aguto
Executive Director
Catholic Climate Covenant



Dan Misleh
Founder
Catholic Climate Covenant



Dan Last
Program Manager
Catholic Energies



Catholic Energies
Conserve, Educate, Inspire

At Catholic Energies,
Our Mission Is To Power Yours

Working exclusively with Catholic organizations, Catholic Energies provides expertise to design, implement and finance sustainable projects that reduce energy costs, enabling your organization to use those savings in support of your critical ministries.

We are passionate and committed to helping Catholic organizations act on Pope Francis' encyclical, *Laudato Sí*, by making the most of their real estate and clean energy opportunities.

Green Energy Progress

How Do Projections Compare With Reality?

2000 Projection

Worldwide
wind capacity
will reach 30
GW by 2010

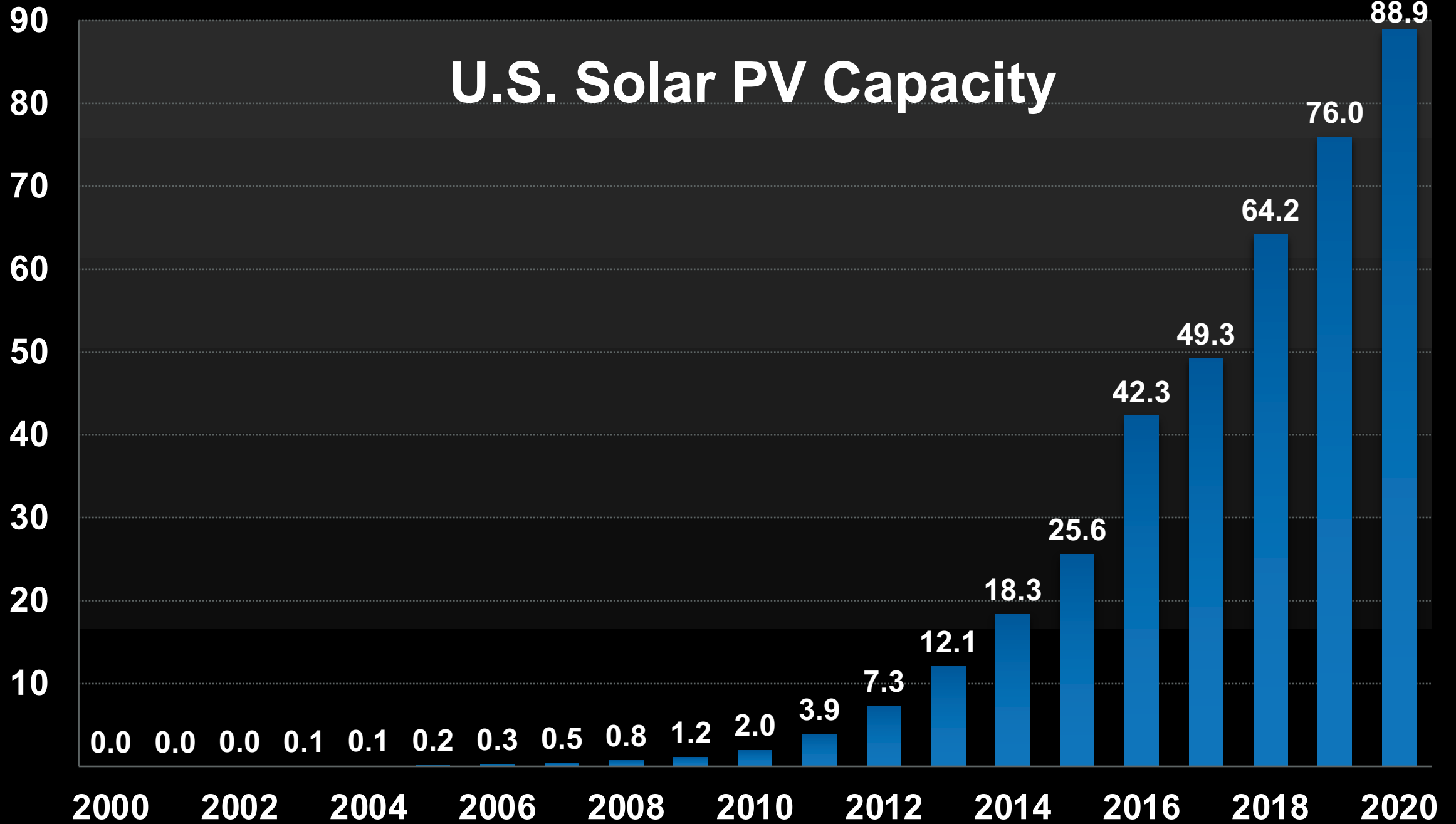
Reality

By 2020 that goal
was exceeded by
a factor of

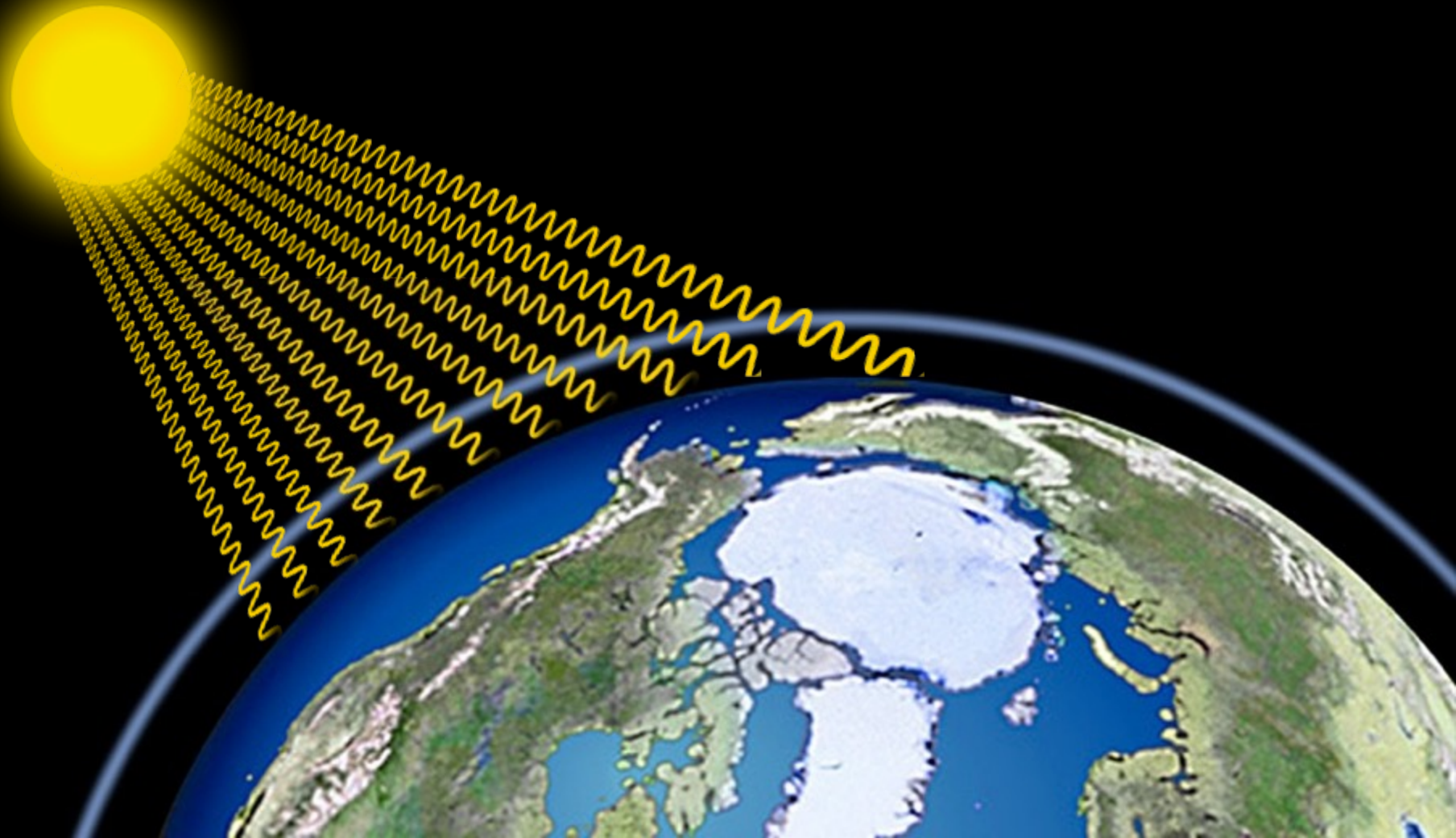
24 x

U.S. Solar PV Capacity

Cumulative Gigawatts Installed



Enough solar energy reaches Earth **every hour**
to fill all the world's energy needs **for a full year**



Catholic Charities' solar array blessed, seen as model for ecological action by church groups

OCT 17, 2019 LOCAL BY MARK ZIMMERMANN



Washington Archbishop Wilton Gregory and Msgr. John Enzler, the president and CEO of Catholic Charities of the Archdiocese of Washington, share a laugh before the Oct. 17 blessing of the solar array on property owned by Catholic Charities that is being leased to produce renewable energy for residents of Washington, D.C. Behind them can be seen some of the more than 5,000 ground-mounted solar panels that will generate energy there. (CS photo/Andrew Biraj)

The sun shone on Catholic Charities, literally, on Oct. 17, as Archbishop Wilton Gregory blessed a solar array being installed on five acres of the agency's land surrounding the Missionaries of Charity's Gift of Peace home. The array of 5,072 panels is expected to be completed and operational by early 2020, and will be the largest such solar project built thus far in Washington, D.C.

"The Lord gave us a beautiful day to celebrate something pretty special for us," said Msgr. John Enzler, the president and CEO of Catholic Charities of the Archdiocese of Washington at a ceremony where the project's partners spoke about its benefits.



Inflation Reduction Act (IRA)

Included the single largest investment into clean energy, energy efficiency, and energy resiliency in US history

Virtually every technology – existing and emerging – is incentivized

Increases the emphasis on communities which have been negatively impacted by energy production

Provides “carrots and sticks” to encourage domestic production and purchasing of domestic materials for projects

Levels the playing field – mostly – for nonprofits when investing in clean energy projects

Specifics for Nonprofits - Solar

- Previously nonprofits paying cash or financing a solar project would forfeit the Investment Tax Credit (ITC)
- IRA creates a new mechanism – Direct Payment – which nonprofits can take in lieu of the ITC
- Direct Payment fixed at base amount of 30% through 2032*
 - 10% additional for meeting domestic content requirements
 - 10% additional for siting projects in “energy communities”
 - 10% additional for siting projects in a low-income community
- * For projects < 1 megawatt (MW); projects over 1MW have additional requirements including some for prevailing wages

Power Purchase Agreements – Still An Option

- Power Purchase Agreements (PPAs) are still a great option
- Widely used contract structure, especially for nonprofits, for past several decades
- Investor takes 100% of the financial risk in exchange for future payments by the system host (nonprofit) for electricity generated by the system
- Typically 20–25 years with early buyout options
- Investor keeps all tax benefits, rebates, renewable energy credits (RECs) and any other incentives

Comparison of Financing Structures

Type of Financing	Equipment Ownership	Upfront Cost to Host	Investment Tax Credit	Direct Payment	Insurance, Taxes
PPA	Investor	None	30%-60% to investor	N/A	Investor
Direct Ownership	Host	100% - can be financed	N/A	30-60% to host	Host

Equipment Ownership – Includes O+M, warranty claims, and disposition

Investment Tax Credit/Direct Payment – Two sides of the same coin, one benefiting for-profit taxpayer, the other paid directly to nonprofit

Insurance – In a PPA, host may need to increase P+C insurance to cover risk of liability for system loss

Taxes – Many (but not all) states exempt property tax for solar; likely nonprofits exempt anyway

Sample Economics

Sample PPA Economics							
Year	Solar Production kWh	Utility Electricity		Cost of PPA		Net Annual Savings	Cumulative Savings
		Avoided cost \$/kWh	Energy Savings (\$)	Solar PPA Rate	PPA Payments		
1	800,539	\$ 0.0997	\$ 79,774	\$ 0.0925	(\$74,050)	\$ 5,724	\$5,724
2	796,537	\$ 0.1027	\$ 81,835	\$ 0.0944	(\$75,153)	\$ 6,682	\$12,406
3	792,554	\$ 0.1059	\$ 83,951	\$ 0.0962	(\$76,273)	\$ 7,678	\$20,084
4	788,591	\$ 0.1092	\$ 86,120	\$ 0.0982	(\$77,409)	\$ 8,711	\$28,794
5	784,648	\$ 0.1126	\$ 88,346	\$ 0.1001	(\$78,563)	\$ 9,783	\$38,578
6	780,725	\$ 0.1161	\$ 90,629	\$ 0.1021	(\$79,733)	\$ 10,896	\$49,473
7	776,821	\$ 0.1197	\$ 92,972	\$ 0.1042	(\$80,921)	\$ 12,050	\$61,523
8	772,937	\$ 0.1234	\$ 95,374	\$ 0.1063	(\$82,127)	\$ 13,247	\$74,771
9	769,072	\$ 0.1272	\$ 97,839	\$ 0.1084	(\$83,351)	\$ 14,489	\$89,259
10	765,227	\$ 0.1312	\$ 100,368	\$ 0.1105	(\$84,593)	\$ 15,775	\$105,034
11	761,401	\$ 0.1352	\$ 102,962	\$ 0.1128	(\$85,853)	\$ 17,109	\$122,143
12	757,594	\$ 0.1394	\$ 105,623	\$ 0.1150	(\$87,132)	\$ 18,491	\$140,634
13	753,806	\$ 0.1437	\$ 108,353	\$ 0.1173	(\$88,431)	\$ 19,922	\$160,556
14	750,037	\$ 0.1482	\$ 111,153	\$ 0.1197	(\$89,748)	\$ 21,405	\$181,961
15	746,287	\$ 0.1528	\$ 114,026	\$ 0.1221	(\$91,086)	\$ 22,940	\$204,902
16	742,555	\$ 0.1575	\$ 116,973	\$ 0.1245	(\$92,443)	\$ 24,530	\$229,432
17	738,843	\$ 0.1624	\$ 119,996	\$ 0.1270	(\$93,820)	\$ 26,176	\$255,608
18	735,148	\$ 0.1674	\$ 123,098	\$ 0.1295	(\$95,218)	\$ 27,879	\$283,488
19	731,473	\$ 0.1726	\$ 126,279	\$ 0.1321	(\$96,637)	\$ 29,642	\$313,130
20	727,815	\$ 0.1780	\$ 129,543	\$ 0.1348	(\$98,077)	\$ 31,466	\$344,596
21	724,176	\$ 0.1835	\$ 132,891	\$ 0.1375	(\$99,538)	\$ 33,353	\$377,948
22	720,555	\$ 0.1892	\$ 136,325	\$ 0.1402	(\$101,021)	\$ 35,304	\$413,252
23	716,952	\$ 0.1951	\$ 139,849	\$ 0.1430	(\$102,526)	\$ 37,322	\$450,575
24	713,368	\$ 0.2011	\$ 143,463	\$ 0.1459	(\$104,054)	\$ 39,409	\$489,984
25	709,801	\$ 0.2073	\$ 147,171	\$ 0.1488	(\$105,604)	\$ 41,566	\$531,550
Total	18,857,462		\$ 2,754,914		(\$2,223,366)	\$ 531,550	

Sample Direct Ownership Option									
Year	Solar Production kWh	Utility Electricity		Est. MD SRECs \$	Savings + Income Benefit	Y0 CapEx Y1 Direct Pay Grant	Net Annual Savings	Cumulative Savings	IRR
		Avoided cost \$/kWh	Energy Savings (\$)						
1	800,539	\$ 0.0997	\$ 79,774	\$36,024	\$ 115,798	\$ (1,611,727)	\$ (1,611,727)	\$ (1,611,727)	
2	796,537	\$ 0.1027	\$ 81,835	\$35,844	\$ 117,680	\$ 483,518	\$ 599,316	\$(1,012,411)	-63%
3	792,554	\$ 0.1059	\$ 83,951	\$35,665	\$ 119,615		\$ 117,680	\$(894,731)	-49%
4	788,591	\$ 0.1092	\$ 86,120	\$ 7,886	\$ 94,006		\$ 119,615	\$(775,116)	-34%
5	784,648	\$ 0.1126	\$ 88,346	\$ 7,846	\$ 96,192		\$ 94,006	\$(681,110)	-26%
6	780,725	\$ 0.1161	\$ 90,629	\$ 7,807	\$ 98,437		\$ 96,192	\$(584,917)	-18%
7	776,821	\$ 0.1197	\$ 92,972	\$ 7,768	\$ 100,740		\$ 98,437	\$(486,481)	-13%
8	772,937	\$ 0.1234	\$ 95,374	\$ 7,729	\$ 103,104		\$ 100,740	\$(385,741)	-9%
9	769,072	\$ 0.1272	\$ 97,839	\$ 7,691	\$ 105,530		\$ 103,104	\$(282,637)	-6%
10	765,227	\$ 0.1312	\$ 100,368	\$ 7,652	\$ 108,020		\$ 105,530	\$(177,107)	-3%
11	761,401	\$ 0.1352	\$ 102,962	\$ 7,614	\$ 110,576		\$ 108,020	\$(69,087)	-1%
12	757,594	\$ 0.1394	\$ 105,623	\$ 7,576	\$ 113,199		\$ 110,576	\$41,489	1%
13	753,806	\$ 0.1437	\$ 108,353	\$ 7,538	\$ 115,891		\$ 113,199	\$154,689	2%
14	750,037	\$ 0.1482	\$ 111,153	\$ 7,500	\$ 118,654		\$ 115,891	\$270,580	3%
15	746,287	\$ 0.1528	\$ 114,026	\$ 7,463	\$ 121,489		\$ 118,654	\$389,233	4%
16	742,555	\$ 0.1575	\$ 116,973	\$ 7,426	\$ 124,399		\$ 121,489	\$510,722	5%
17	738,843	\$ 0.1624	\$ 119,996	\$ 7,388	\$ 127,385		\$ 124,399	\$635,121	5%
18	735,148	\$ 0.1674	\$ 123,098	\$ 7,351	\$ 130,449		\$ 127,385	\$762,506	6%
19	731,473	\$ 0.1726	\$ 126,279	\$ 7,315	\$ 133,594		\$ 130,449	\$892,955	6%
20	727,815	\$ 0.1780	\$ 129,543	\$ 7,278	\$ 136,821		\$ 133,594	\$1,026,549	7%
21	724,176	\$ 0.1835	\$ 132,891	\$ 7,242	\$ 140,133		\$ 136,821	\$1,163,369	7%
22	720,555	\$ 0.1892	\$ 136,325	\$ 7,206	\$ 143,531		\$ 140,133	\$1,303,502	8%
23	716,952	\$ 0.1951	\$ 139,849	\$ 7,170	\$ 147,018		\$ 143,531	\$1,447,033	8%
24	713,368	\$ 0.2011	\$ 143,463	\$ 7,134	\$ 150,597		\$ 147,018	\$1,594,051	8%
25	709,801	\$ 0.2073	\$ 147,171	\$ 7,098	\$ 154,269		\$ 150,597	\$1,744,648	8%
Total	18,857,462		\$ 2,754,914		\$ 3,027,126		\$ 1,898,917	\$1,898,917	9%

Further Considerations for Solar

Roofs

- For a PPA, roofs must be <10 years' old; no requirement for direct ownership projects, but building on old roofs is not recommended
- On occasion, roof repair/replacement can part of project

Storage

- Energy storage projects also receive the same Direct Payment or Investment Tax Credit regardless of whether they are part of a solar project
- Great option for nonprofits seeking greater resiliency

Canopies

- Like roof repair/replacement, the extra CapEx is not underwritten by extra savings
- Some states, including MA and NY, incentivize canopies, easing the burden of the extra cost
- Way to increase production where roof and ground real estate is limited
- Covered parking is an additional benefit that can be hard to quantify financially

Energy Efficiency Options for Nonprofits

- IRA increased the value of the deduction for commercial building owners who invest in energy efficiency improvements
- The deduction also now can be allocated to designers of energy-efficient buildings for tax-exempt entities – provides a way for nonprofits to benefit from these provisions
- Applicable to lighting, building envelope, and HVAC upgrades.
Example projects:
 - LED lighting retrofits
 - Switching to heat pumps from gas/oil heating
 - Doors/windows/insulation

Key Takeaways

- IRA truly is a gamechanger for nonprofits!
- Rules are still being finalized, and won't be fully implemented until at least Q1 2023
- Nonprofits should begin project development now – many aspects of project implementation can be executed before rules are finalized
- Opportunities exist for every nonprofit – unless you are totally “off-the-grid”, IRA provides incentives for a potentially impactful project
- Catholic Energies can help! We've developed 30+ projects for Catholic and entities in 14 states + Puerto Rico

Questions?



Email us at: info@Catholicclimatecovenant.org

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