



Federal and State Incentives for Building Decarbonization

Things we won't cover in the next hour

- This is the money and financing hour-- I'll focus on Federal
- I've co-conspired with Monte Hilleman on how we want to divide this up
- Won't be talking building codes, but....
 - Want to acknowledge the important work Commerce is doing with many folks in the audience on standards and codes
 - There are new federal funding sources for codes work
 - Congrats to CEE for "Resilient and Efficient Codes Implementation" grant!
- Also won't be focusing on existing PACE work– but acknowledge ongoing efforts of St. Paul Port Authority

Framework goal areas

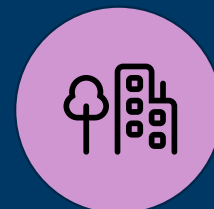
Organizing our work



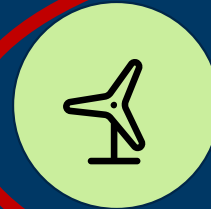
Clean
transportation



Climate-smart natural
and working lands



Resilient
communities



Clean energy and
efficient buildings



Healthy lives and
communities



Clean
economy

Commerce's primary focus

MEASURES OF PROGRESS



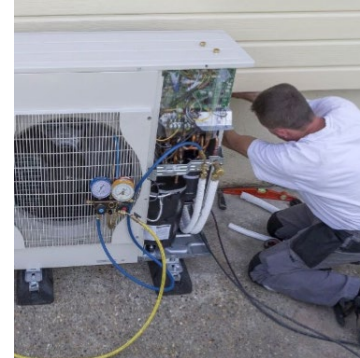
Clean energy and efficient buildings



By 2040, all of Minnesota's electricity is carbon-free.



By 2030, weatherize a quarter of dwellings where occupants earn 50% or less of the state median income.



By 2035, reduce emissions from existing buildings by 50% compared to 2005 levels.

Minnesota has big climate plans (and big climate LAWS)



Backed up by big investments

- Buy Clean, Buy Fair Minnesota
- 100% Carbon-Free Electricity by 2040
- Sustainable Building Guidelines Modifications
- Preference Order for Purchase of State Vehicles
- RDA Projects Subject to Prevailing Wage/Diversity Report
- Solar Reward Expansion
- Air Ventilation Program Act
- Auto dealers must employ personnel with knowledgeable of electric vehicles
- Utility Reporting Due Date Modification
- Repeal/Reinstatement of Intervenor Compensation Statute
- Electric Vehicle Deployment Program
- **Strengthen MN Homes**
- Customer's Access to Electricity Usage Data
- Transportation Electrification Plan
- Community Solar Garden Modifications
- Prairie Island Nuclear Power Plan Settlement Payments
- Distributed Solar Energy Standard
- Energy Storage Systems Deployment Target
- Utility Customer Dispute Resolution
- Definition of Low-Income Household
- Approval of Projects to Modernize Transmission and Distribution System
- Large Wind Energy Conversion System Certification of Need Exemption
- Modification of Threshold Requiring PUC Approval
- Commerce's Assessment Increase
- Compensation for Certain PUC Proceeding Participants
- **State Competitiveness Fund**
- State Competitiveness Fund 2.0
- **Climate Innovation Finance Authority**
- Commissioner authority to administrator Solar for Schools Program
- **Pre-weatherization and Workforce Training Program**
- Energy Benchmarking
- Electric School Bus Deployment Program
- Solar for School Modifications from Xcel to Commerce Department
- Solar on Public Building Program Establishment
- Energy Storage Incentive Program
- Distribute Energy Resources System Upgrade Program
- Electric Vehicle Rebates
- Dealers Grants to Cover cost manufacturer certification
- PACE Loan Program
- **Residential Electrical Panel Upgrade Grant Program**
- **Residential Heat Pump Rebate Program**
- Public Utility Diversity Reporting
- Energy Storage System Definition
- Conforming Changes to definition of large energy power facilities and site permit
- Gas and Hazardous Liquid Definitions Changes
- Greenhouse Gas Emission Reduction Goal Modifications
- Modification to Annual Report on Telecommunications Access Program
- Restriction on single family solar installations prohibited
- Extension of Sunset on Gas Utility Recovery of Infrastructure Costs



New State Funding

Residential Programs

- Total New Funding: \$59 million State / Over \$228 million Federal
 - PreWeatherization (available until expended; incorporate into existing program) (\$45.1 million + ongoing staffing)
 - PreWeatherization—Workforce Training
 - Strengthen MN Homes (2-year timeline for development) (\$1 million)
 - Residential Electric Panels Upgrade Grant Program (\$6 million)
 - Healthy AIR Program (\$300,000)
 - Residential Heat Pump Rebate Program (\$6 million)

Solar Programs

- Community Solar Gardens (\$1.9 million over biennium; ongoing assessment)
- Solar for Schools (\$30.5 million new, expanded statewide)
- Solar on Public Buildings (\$5 million)

Buildings Sector

- Air Ventilation Program (\$1M)
- Energy Benchmarking (\$2M)
- Cannabis Facilities (\$160K)

Unlocking Federal Funds

State Competitiveness Fund	
Grant development Assistance	\$ 6,000,000
Matching funds for Federal Grants	\$ 100,000,000
Grants to leverage tax credits and loans (for projects serving low-income communities)	\$ 75,000,000

Climate Investment Finance Authority

Climate Investment Finance Authority: a new Minnesota "Green Bank". (SF3035, Article 21, section 2)	\$ 45,000,000
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Statutory Direction

- “To accelerate the deployment of clean energy projects, greenhouse gas emissions reductions projects and other qualified projects through the strategic deployment of public fund in the form of grants, loans, credit enhancements and other financing mechanisms...”
- New independent state agency to be set up starting fall 2023, to seek federal (IRA) Greenhouse House Reduction Funds
- Additional focus on service to Disadvantaged, Low-income, or Tribal communities

Minnesota has big climate plans

The Federal Government is here to help
(honest)

Until recently, I had a different job

Dr. Pete Wyckoff

Senior Policy Advisor for Energy & Climate

Office of Senator Tina Smith



Federal Investments



Infrastructure
Investment &
Jobs Act (IIJA)



Inflation
Reduction
Act (IRA)

Senator Smith- Rep. Blunt Rochester

“Open Back Better Act of 2020”

Open Back Better Act of 2020
Senator Tina Smith (D-Minn.)

S.###: The Open Back Better Act of 2020
House Companion Lead: Representative Lisa Blunt Rochester (D-DE)

The Open Back Better Act of 2020 would provide stimulus funding to states, federal agencies, and tribes to upgrade public building infrastructure while:

- Creating good jobs doing critical, long neglected upgrades in our schools, hospitals, federal buildings, and other public facilities.
- Making these facilities safe to re-open via improvements to reduce threats from COVID 19 and improve indoor air quality.
- Prioritizing environmental justice through projects targeted at low-income, COVID impacted communities.
- Reducing emissions and lowering operating costs by improving building energy efficiency.

As we begin to recover from current health and economic crises, we should ensure that we do not return to the status quo, but rather **Build Back Better** to become more resilient and prepared for future crises. Eligible facilities include federal, state, and local buildings such as schools, medical facilities, government buildings, education institutions, libraries, and any additional facilities approved by the Secretary of Energy.

The Open Back Better Act of 2020 would put hundreds of thousands of people back to work immediately while:

- Including prevailing wage requirements that will ensure that the jobs created will be good jobs.
- Leveraging funds with energy savings performance contracts or other ways to access private funding so that \$20 billion of federal investments could result in over \$100 billion of in investment.

The Open Back Better Act of 2020 provides \$20 billion over 4 years for mission critical public infrastructure. The Open Back Better Act of 2020 operates through three existing Department of Energy (DOE) programs, saving the time that would be required to stand up new federal programs. Funding will be delivered through the DOE State Energy Program, DOE Federal Energy Management Program, and the DOE Office of Indian Energy. Past experience shows that these programs can deploy quickly and put people back to work while providing much needed infrastructure improvements.

Current Endorsements: National Association of State Energy Officials (NASEO), Insulators Union (HFIWA), Natural Resources Defense Council (NRDC), National Association of Energy Service Companies (NAESCO), Alliance to Save Energy, Federal Performance Contracting Coalition (FPCC), Minnesota Center for Energy and Environment (MNCEE).

- \$20 billion for public building energy efficiency and resiliency
- First introduced as a COVID stimulus bill
- Passed the House multiple times— never passed the Senate
- Tried for IIJA and IRA— was in the IRA until the final cut, but did not make it

IJA funding for buildings

- One time \$3.5 billion addition to Weatherization Assistance Program
- \$250 million for the Affect Program at DOE (Federal Building Energy Efficiency)
- \$430 million for Energy Efficiency and Conservation Block Grant Program



Inflation Reduction Act of 2022 (IRA)

The Biggest Climate Action Law

Ever

Anywhere in the World



INSIGHTS

POLICY FORUM

ENERGY AND CLIMATE POLICY

Emissions and energy impacts of the Inflation Reduction Act

Economy-wide emissions drop 43 to 48% below 2005 levels by 2035 with accelerated clean energy deployment

By John Bistline¹, Geoffrey Blanford¹, Maxwell Brown², Dallas Burtraw³, Maya Domeshek³, Jamil Farbes⁴, Allen Fawcett⁵, Anne Hamilton², Jesse Jenkins⁶, Ryan Jones⁴, Ben King⁷, Hannah Kolus⁷, John Larsen⁷, Amanda Levin⁸, Megan Mahajan⁹, Cara Marcy⁵, Erin Mayfield¹⁰, James McFarland⁵, Haewon McJeon¹¹, Robbie Orvis⁹, Neha Patankar¹², Kevin Rennert³, Christopher Roney¹, Nicholas Roy³, Greg Schivley¹³, Daniel Steinberg², Nadejda Victor¹⁴, Shelley Wenzel⁹, John Weyant¹⁵, Ryan Wiser¹⁶, Mei Yuan¹⁷, Alicia Zhao¹¹

The IRA ...135 distinct programs and tax credits

Grants = \$110 billion (capped)

Clean energy loans ~ \$500 billion (capped)

Tax Credits ~ \$700 billion to \$1.2 trillion (uncapped, estimated)

- “Direct Pay” for local governments, Tribes, and non-profits

IRA Grants (\$110 billion)

Residential Rebate Programs: HOMES

Rented, single-family, multifamily households

- Rebates for energy efficiency
- Whole-house approach; technology neutral
- Rebates based on energy savings:
 - \$2,000 for 20% energy savings
 - \$4,000 for 35% energy savings
 - Doubled for income-qualified households below 80% AMI

Note: NOT for new construction

10/31/2023

mn.gov/commerce



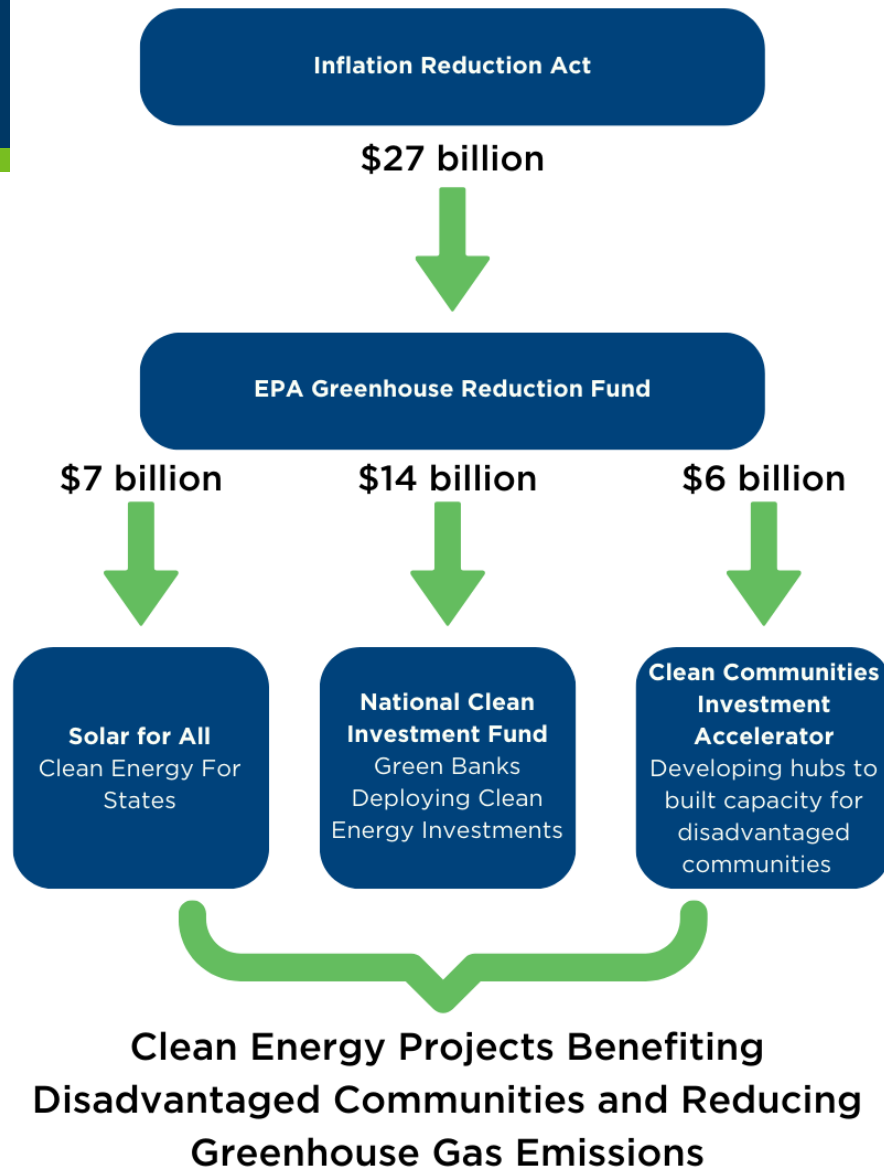
Residential Rebate Programs: HEERA

Electric Load Service Center Upgrades*	\$4,000
Electric Stove, Cooktop, Range, and/or Oven	\$840
Electric Wiring	\$2,500
Heat Pump Clothes Dryer	\$840
Heat Pump Heating/Cooling	\$8,000
Heat Pump Water Heaters*	\$1,750
Insulation and Air Sealing	\$1,600

* New State level incentives may align

- Households > 150% AMI are not eligible;
- Households below 80% AMI eligible for more funds
- Rented, single-family and multifamily eligible
- New construction eligible

Grants to fund Green Banks



Minnesota Funding Levels: HOMES and HEERA

HOMES: \$74,400,000

HEERA: \$74,000,000

IRA Loans (\$500 billion)

Joe Biden's \$400 Billion Man

Jigar Shah, who runs the Energy Department's loan program, is trying to hand out a lot of money for green-technology projects, while navigating an unforgiving political environment

Scott Patterson [Follow](#) and Amrith Ramkumar [Follow](#)

Updated July 3, 2023 12:05 am ET



Minnesota's Electric Cooperatives @MNRuralElectric · Jul 25
MREA was excited to help host @JigarShahDC from @ENERGY along with @LIUNAMinnesota! Co-op innovation along with federal support is fueling reliable, affordable clean energy for the 1.7 million Minnesotans served by co-ops. Teamwork makes us stronger! #Energy #CooperativePower



IRA funds increases DOE Loan Authority



1) Innovative Clean Energy Loan Guarantees (\$80 billion)

- “Innovative” Requirement waived if a State Green Bank also contributes to a project

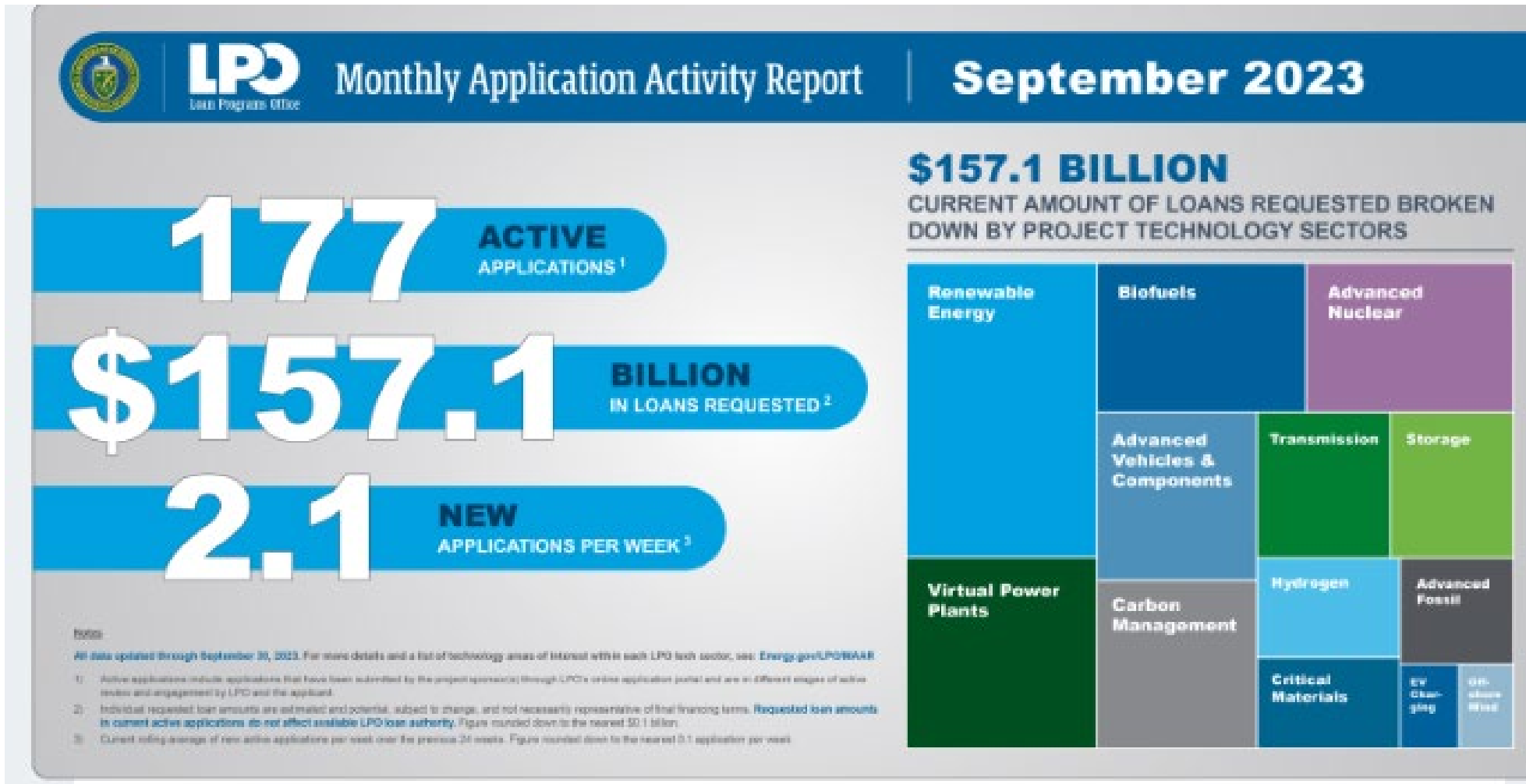
2) Energy Infrastructure Reinvestment Program (\$250 billion)

- Support utilities in transition to clean

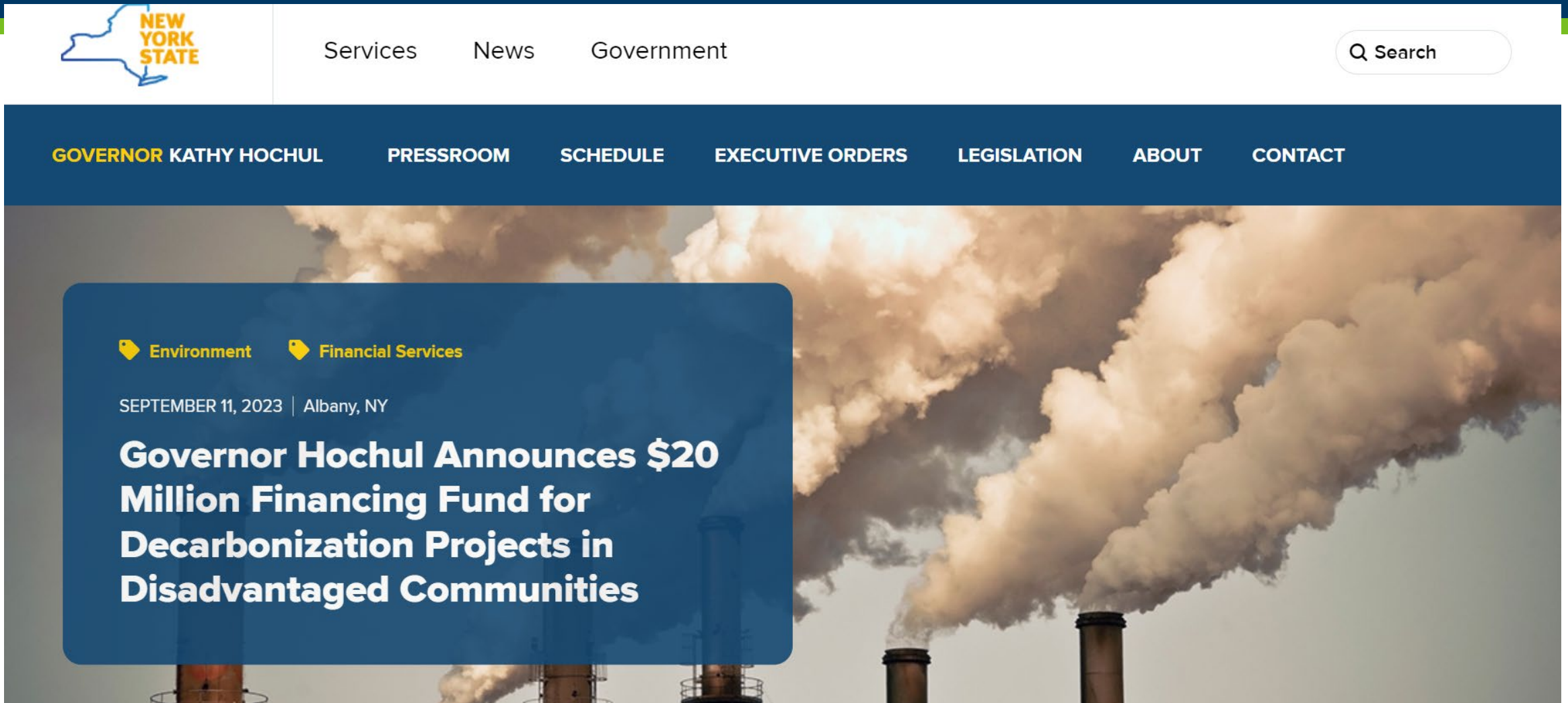
3) Advanced Vehicle Manufacturing (\$40 billion)

4) Tribal Energy Loan Guarantee Program (\$20 billion)

Lots of loans in process



LPO can work with State Green Banks



Tax Credits (\$700 Billion - \$1.2 Trillion, uncapped)

The Federal Government has a history of tax credits to encourage renewable energy deployment



Wind Production
Tax Credit (PTC)
since 1992



Solar Investment
Tax Credit (ITC)
since 2006

Expanded Tax Credits

Tax credit provisions incentivize low- & no-carbon electricity

- Existing eligibility for PTC (wind) and ITC (solar) now broadened to allow both to use either tax credit
- Stand-alone energy storage projects can receive the ITC
- Expanded: geothermal, fuel cells, biomass, landfill gas, hydropower, combined heat and power
- Electric sector ITC/PTC for available until national emissions are <25% of 2022 emissions

Direct Pay Provisions

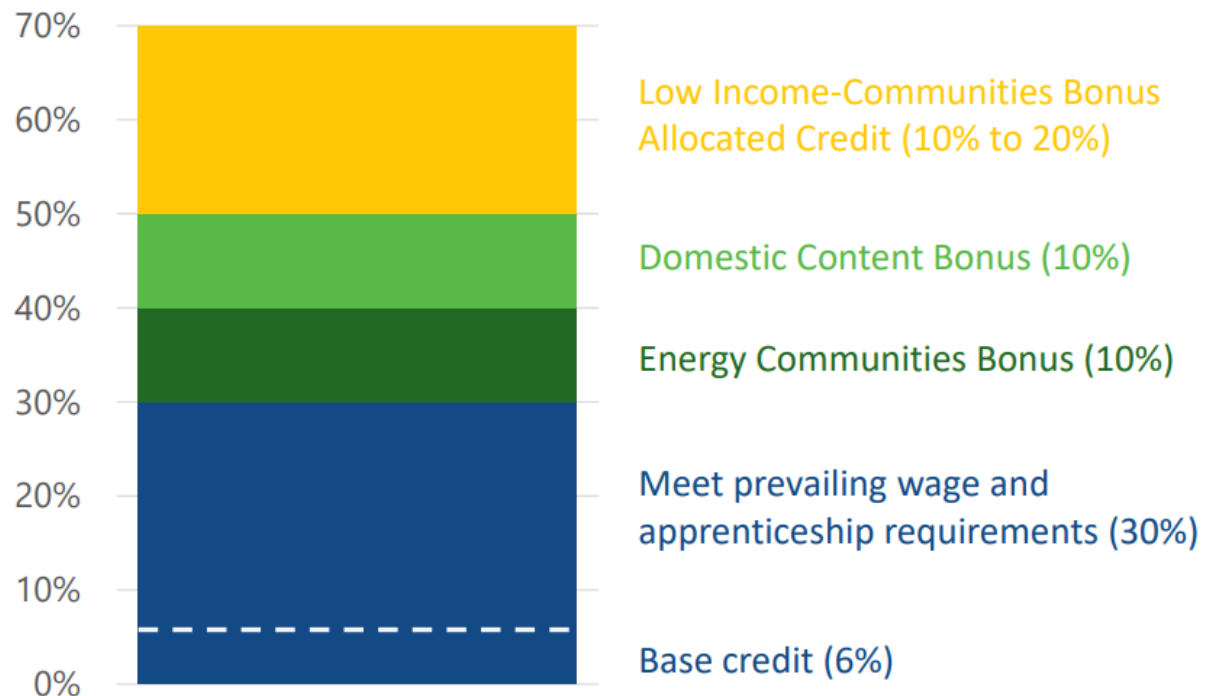
“Direct pay” allows tax-exempt entities to capture tax benefits

- States
- Cities, Counties, Townships
- Tribal Nations
- Non-profits
- Faith Communities
- Cooperative and Municipal Utilities
- Other governmental entities

Tax Credit Adders & Stacking

Clean Energy Layer Cake

Total Investment Tax Credit



A hypothetical 1 MW community solar facility costing \$1 million could earn a **70% tax credit** worth \$700,000

If it is owned by a tax-exempt entity, this could be a **direct cash payment** from the IRS

Applies to clean electricity investment and production tax credits, available till at least 2032

Slide Credit:
Paul
Donohoo-
Vallet,
US DOE

IRA Tax Credits– New Energy Efficient Home Credit (45L)

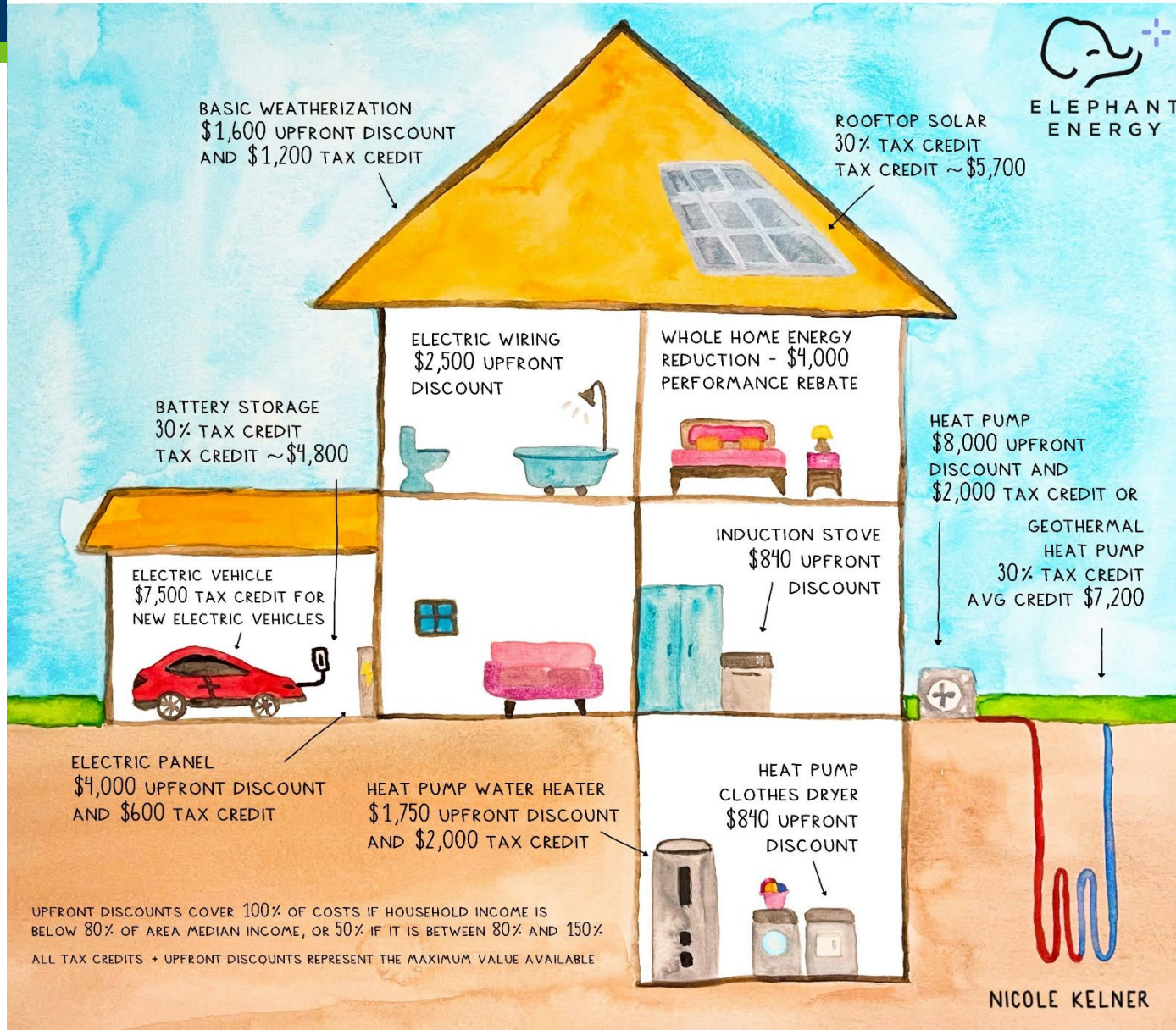
- For new or substantially reconstructed and rehabilitated single and multifamily homes
- Must meet ENERGY STAR (and Zero Energy Ready Home Program energy for full credit) efficiency standards
- Up to \$5000 per unit for multifamily buildings
 - \$2500 max if only ENERGY STAR
- Full credit requires prevailing wage and apprenticeships
- Can be used in conjunction with Low-Income Housing Tax Credit (LIHTC) without reducing LIHTC basis

IRA expansion– Energy Efficient Commercial Buildings Deduction (179D)

- For commercial buildings and multi-family buildings >3 stories
- Buildings owned by government entities or Tribal governments also eligible
- For improvements to building envelope efficiency, HVAC, hot water systems, and interior lighting system
- Improvements must result in at least 25% energy and power cost savings
- Up to \$5 per square foot (increased from \$1.80 prior to IRA)
- Full value requires prevailing wage and apprenticeship provisions

POTENTIAL SAVINGS FROM THE IRA

BASED OFF A 4 PERSON HOME WITH A COMBINED INCOME OF \$150,000 IN DENVER, COLORADO



- IRA also has consumer and homeowner facing tax credits and rebates
- In Minnesota, the Federal Rebate programs will be administered by Commerce

The background of the slide is a repeating pattern of speech bubbles in various colors (red, yellow, pink, white, and dark blue) against a teal background. Each speech bubble contains a large, dark blue question mark. The bubbles are scattered across the entire slide, with some appearing more prominent than others.

Questions?

Fedquestions.commerce@state.mn.us

Or pete.wyckoff@state.mn.us



Sustainable Investment Group (SIG)

**Sustainability | Wellness | ESG
Consulting & Engineering**

Monte Hilleman

Vice President of Environmental Resiliency Compliance & Investment

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Consulting

- LEED Consulting (BD+C, ID+C, O+M, Campus, Communities)
- WELL | WELL HSR Consulting
- Fitwel | Fitwel VRM Consulting
- BREEAM Consulting & Assessments
- Gap Analysis & Feasibility Studies
- Exam Prep (LEED Green Associate, AP, WELLAP)
- Waste Audits

ESG

- ENERGY STAR & City Ordinance Benchmarking
- Materiality Assessments
- Annual ESG Reports
- Reporting Frameworks
 - GRESB
 - GRI
 - CDP
 - TCFD
 - SASB

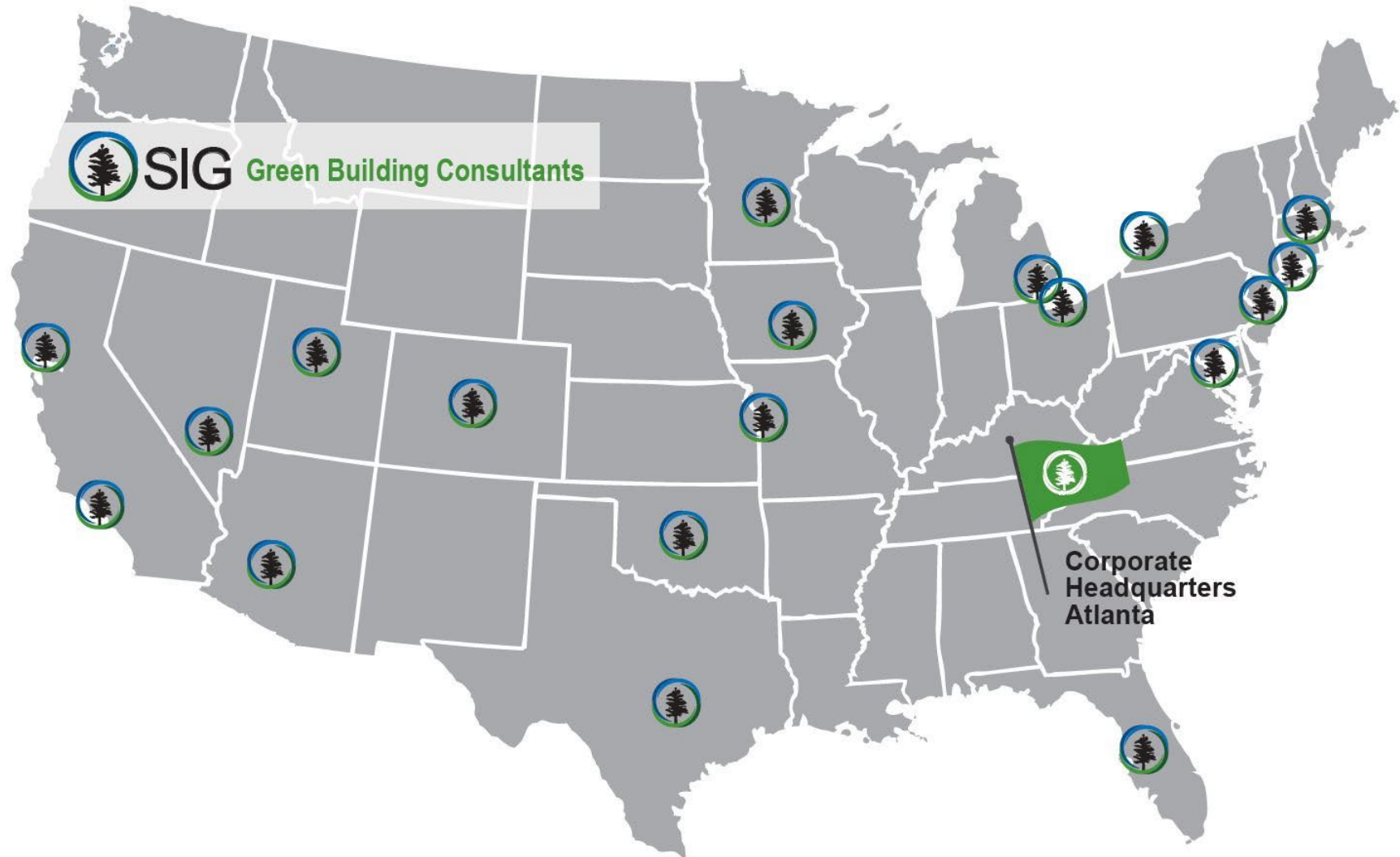
Engineering

- Energy Modeling
- Decarbonization | Electrification | Net Zero Studies
- Commissioning (Cx)
- Retro-Commissioning (RCx)
- ASHRAE Level I-II Energy Audits
- Indoor Air Quality Testing
- Life Cycle Impact Assessments
- Daylight Modeling
- Local Law Compliance

Climate Investment Solutions

- Inflation Reduction Act
 - Tax Credits & Deductions
 - Grants & Loans
 - Rebates
- Commercial Property Assessed Clean Energy (C-PACE)
- Utility & Local Government Incentives
- Green Financing Applicability & Feasibility
- Net Zero Proforma, Cash Flows, & Valuation Studies
- RECs & Carbon Offsets

SIG Office Locations



SIG Clients

OUR CLIENTS



ESG Program Expertise



ESG Clients



SHORENSTEIN



SIG Highlights

SIG supports over **\$34B in Real Estate Assets** and provides Green Building services for **75M sf** annually.



- 400+ LEED Projects | 80M+ sf
- 120+ Energy Audits | 65M+ sf
- 160+ Energy Studies | 70M+ sf
- 15M+ sf Local Law 87/RCx work in NYC
- 50M+ sf Local Law 84 Benchmarking work in NYC
- 500+ ENERGY STAR Certifications (2021 & 2022) | 148M+ sf
- 90+ Commissioning Projects | 25M+ sf
- SIG LEED O+M Volume Prototype → 100 certified buildings | 66.5M sf



SIG

Climate Investment
Solutions (CIS)

Climate Investment Solutions

- 01 Inflation Reduction Act
 - Tax Credits & Deductions
 - Grants & Loans
 - Rebates
- 02 Commercial Property Assessed Clean Energy (C-PACE)
- 03 Utility & Local Government Incentives
- 04 Green Financing Applicability & Feasibility
- 05 Net Zero Proformas, Cash Flows, & Valuation Studies
- 06 RECs & Carbon Offsets



Green Financing Tools

With over 20 years of commercial real estate and green financing experience, across hundreds of projects, we help you find the financial solutions to achieve your climate and sustainability goals.

The good news is there have
NEVER BEEN MORE TOOLS!



INFLATION REDUCTION ACT

- Tax Credits & Deductions
- Grants & Loans
- Rebates

01



COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (C-PACE)

Upfront fixed-rate, long-term,
cash flow positive financing
for clean energy projects

02



LOCAL SUPPORT

State, local government and
utility incentives

03



PRODUCTS & SERVICES

- Green Financing Applicability Matrix & Feasibility Snapshot
- Net Zero Proformas
- After Tax Discounted Cash Flow Valuation Modeling

04



Green Financing Applicability Matrix

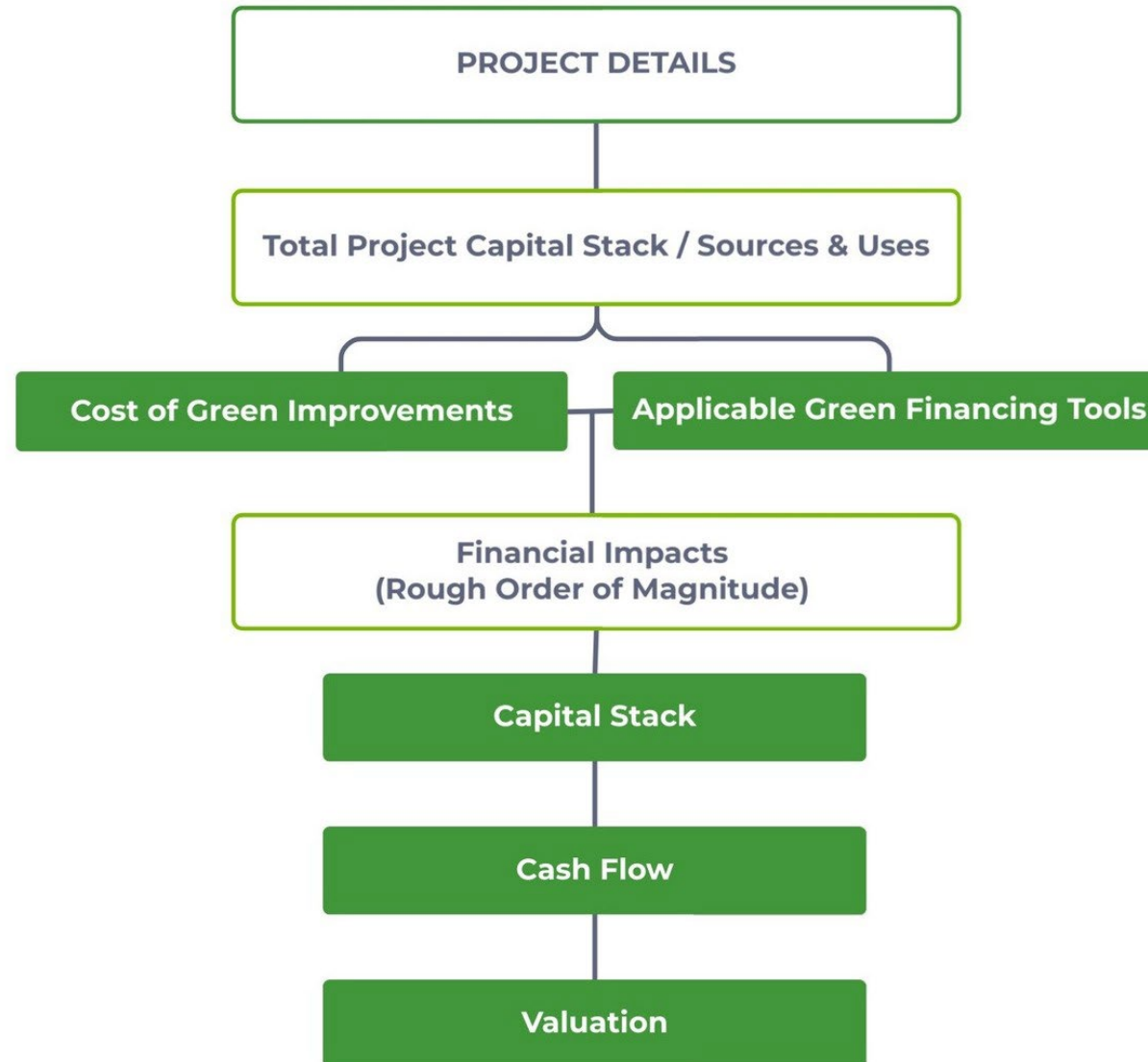


Green Financing Applicability Matrix

GREEN FINANCING TOOL	ASSET CLASS								DEVELOPER MODALITY											IMPACTS			TECHNOLOGY							
	Retail	Office	Industrial	Multi Family (Affordable)	Multi Family (Market Rate)	Hospitality	Specialty	Single Family	OWNER / OPERATOR (NEW CONST)	OWNER / OPERATOR (EXIST BLDG)	REIT	MERCHANT BUILDER	SPECULATIVE	LONG TERM HOLDER	BUILD-TO-SUIT	PORTFOLIO	NON PROFIT / TAX EXEMPT / GOV'T (NOT FEDERAL)	GROSS LEASE	NET LEASE	TAX APPETITE	Capital Stack	Cash Flow Driver	Valuation Driver	SOLAR	WIND	HEAT PUMP (ASHP)	HEAT PUMP (GSHP)	BATTERY STORAGE	THERMAL STORAGE	ENERGY EFFICIENCY
Inflation Reduction Act																														
Tax Credits & Deductions																														
IRA Section 48 - Investment Tax Credit (ITC) Solar / Ground Source Heat Pumps / Energy Storage / EV charging																								X	X		X	X	X	
Elective Pay (aka Direct Pay)																	X		X	LOW										
Transferability / Tax Credit Equity											X	X							X	LOW										
IRA Section 179D - Energy Efficient Commercial Bldgs Deduction	X	X	X						X																					
IRA Section 179D - Designer Tax Deduction									X	X							X													
IRA Section 45L - Tax Credit for Energy Efficient Homes					X																									
Elective Pay (fka Direct Pay)																														
Transferability / Tax Credit Equity																														
IRA Section 25C - Tax Credit for Energy Efficiency Home Improvements																														
IRA Section 25D - Tax Credit for Residential Clean Energy (Solar, Storage, etc)																														
IRA Section 30C - EV/Alt Fuel Infrastructure																														
IRA Grants & Loans																														
EPA Green House Gas Reduction Fund (via states/local gov't)																														
HUD Green & Resilient Retrofit Program					X																									
DOE LPO's																														
PACE / Green Bank Financing									X	X	X	X			X	X														
Property Assessed Clean Energy Financing (PACE) 1-5	X	X	X																											
State Green Bank / Other 1-5																														
State Incentives																														
IRA -> DOE -> States - Energy Efficiency & Electrification Rebates																														
Local Incentives																														
Sustainability Bonds																														



Green Financing Feasibility Snapshot



Green Financing Feasibility Snapshot

CONFIDENTIAL CLIENT
26 STORY MF RES'L
GREEN FINANCING FEASIBILITY SNAPSHOT

GREEN INVESTMENT IMPACTS

Capital Expenditures for Green Improvements

	USES	SOURCES
Energy Efficient Envelope	\$ 8,000,000	\$ -
HVAC Upgrades (GSHP - all electric)	\$ 5,000,000	\$ 525,000
Rooftop Solar	\$ 750,000	\$ 1,125,000
Car Port Solar	\$ 1,250,000	\$ 600,000
Battery Storage	\$ 1,000,000	\$ 300,000
Total	\$ 16,000,000	\$ 2,500,000
		\$ 1,000,000
		\$ 6,050,000

PACE Financing
179D Deduction
ITC Tax Credit - Heat Pumps @ 30%
ITC Tax Credit - Solar @ 30%
ITC Tax Credit - Battery Storage @ 30%
45L Tax Credit
EV Charging Credits
DOE-State EE Rebates (HOMES program)

POTENTIAL SAVINGS

CAPITAL STACK IMPACTS

	-0.5 - 1.0%	Cost of Capital (Green Asset)		
\$	4,525,000	Potential Additional Tax Credits (ITC + 45L)	\$ 4,072,500	\$ 4,163,000
			Conventional	Green Financing (Low)
\$	20,000,000	Potential Equity Replacement (PACE)	20.00%	6.50%
				Green Financing (High)
				5.50%

CONVENTIONAL FINANCING

Project Sources		Conventional Cost of Capital	Conventional Cost of Capital Expense
Senior Debt	\$ 78,000,000	6.50%	\$ 23,700,000
Mezzanine Debt	\$ 12,000,000	13.00%	\$ 7,500,000
PACE / Green Bank	\$ -		\$ -
Tax Credit Equity	\$ -		\$ -
Developer Equity	\$ 30,000,000	20.00%	\$ 29,600,000
Other (grants/etc)	\$ -		\$ -
	\$ 120,000,000		\$ 60,800,000

GREEN FINANCING

Project Sources		Green Cost of Capital (Low)	Green Cost of Capital Expense (Low)	Green Cost of Capital (High)	Green Cost of Capital Expense (High)
Senior Debt	\$ 78,000,000	6.00%	\$ 21,800,000	5.50%	\$ 19,900,000
Mezzanine Debt	\$ -	12.50%	\$ -	12.00%	\$ -
PACE / Green Bank	\$ 20,000,000	6.00%	\$ 5,600,000	5.50%	\$ 5,000,000
Tax Credit Equity	\$ 4,072,500		\$ -		\$ -
Developer Equity	\$ 16,680,000	20.00%	\$ 16,500,000	20.00%	\$ 16,500,000
Other (rebates/grants/etc)	\$ 2,000,000		\$ -		\$ -
	\$ 120,752,500		\$ 43,900,000		\$ 41,400,000

CASH FLOW IMPACTS

	2.4% - 5.6%	Net Operating Income	Conventional	Green Financing (Low)	Green Financing High
		Indicative Valuation	\$ 14,400,000	\$ 14,745,600	\$ 15,206,400
			\$ 320,000,000	\$ 327,680,000	\$ 337,920,000
				\$ 7,680,000	\$ 17,920,000

VALUATION IMPACTS

	0.25 - 1.5%	Exit Cap Rate	Conventional	Green Financing (Low)	Green Financing High
			4.5%	4.25%	4.0%
			\$ 320,000,000	\$ 338,823,529	\$ 360,000,000
				\$ 18,823,529	\$ 40,000,000

GREEN FINANCING FEASIBILITY SNAPSHOT

	LOW	HIGH
Cost of Capital Savings	\$ 16,900,000	\$ 19,400,000
NOI Valuation Impacts	\$ 7,680,000	\$ 17,920,000
Cap Rate Valuation Impacts	\$ 18,823,529	\$ 40,000,000
	\$ 43,403,529	\$ 77,320,000

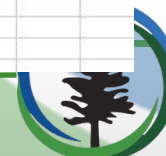
Equity
Cost of Capital : 20%

Mezzanine Debt
Cost of Capital : 13%

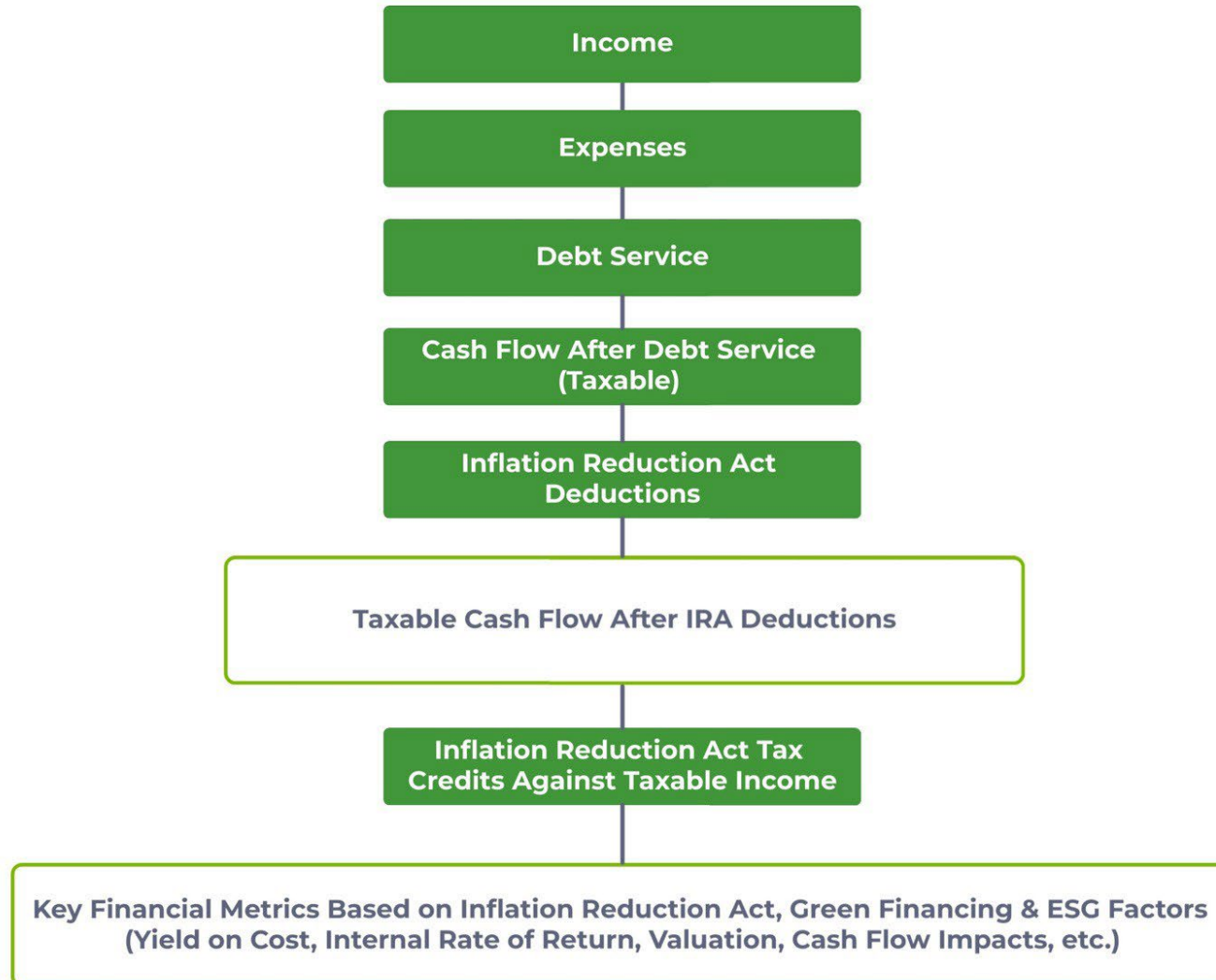
Senior Debt
Cost of Capital : 4.5%

PACE Financing
Cost of Capital: 5.35%
(average)

Equity
Cost of Capital : 20%



Net Zero Proformas & After Tax Discounted Cash Flow Valuations



Net Zero Proformas & After Tax Discounted Cash Flow Valuations

CASH FLOW ANALYSIS		RATES							
			ACQUISITION	CONSTRUCTION	LEASE-UP	STABILIZATION			
	YEAR ENDING		2023	2024	2025	YEAR 1 2026	YEAR 11 2036		
CONVENTIONAL INCOME - EXPENSES = NOI - D/S = CFADS	OCCUPANCY			0%	50%	100%	100%		
	INCOME					INFLATION			
	OFFICE			\$0	\$214,200	\$428,400	\$522,217		
	WAREHOUSE			\$0	\$642,600	\$1,285,200	\$1,566,652		
	ADDITIONAL RECOVERABLE RENTAL INCOME (NNN)				\$151,500	\$1,041,841	\$1,269,998		
	GROSS POTENTIAL INCOME			\$0	\$1,008,300	\$2,755,441	\$3,358,867		
	TIF INCREMENT								
	VACANCY	0.00%		\$0		\$0	\$0		
	CAPITAL RESERVE	2.50%							
	EFFECTIVE GROSS INCOME			\$0	\$1,008,300	\$2,755,441	\$3,358,867		
RECOVERABLE EXPENSES					INFLATION	2.00%			
COMMON AREA MAINT	\$1.00		(\$84,000)	(\$151,200)	(\$168,000)	(\$204,791)			
PROPERTY TAXES			\$0	(\$402,649)	(\$805,297)	(\$981,653)			
PROPERTY ASSESSMENTS (inc. PACE)									
UTILITIES									
MANAGEMENT FEES	4.00%		\$0	(\$40,332)	(\$68,544)	(\$83,555)			
NON-RECOVERABLE ADMIN FEE (\$1,000/MONTH)			(\$6,000)						
TOTAL EXPENSES			(\$90,000)	(\$594,181)	(\$1,041,841)	(\$1,269,998)			
NET OPERATING INCOME (BEFORE D/S & TAX)				(\$90,000)	\$414,119	\$1,713,600	\$2,088,869	\$21,266,430	
DEBT SERVICE									
INTEREST				CONST. LOAN	CONST. LOAN	(\$985,253)	(\$769,618)		
PRINCIPAL				CONST. LOAN	CONST. LOAN	\$ (510,869.66)	(\$862,516)		
CASH FLOW AFTER DEBT SERVICE (TAXABLE)					\$414,119	\$217,477	\$456,734	\$3,448,964	
CONVENTIONAL CORPORATE TAXES	PRELIMINARY TAX RATE	21%							
	PRELIMINARY TAXES				(\$86,965)	(\$45,670)	(\$95,914)	(\$724,282)	
CONVENTIONAL DCF VALUATION	CASH FLOW AFTER DEBT SERVICE + AFTER TAX (PRE_GF)				\$ 327,154	\$ 171,807	\$ 360,820	\$ 2,724,681	\$2,724,681
	CASH FLOWS FOR VALUATION					\$ 171,807	\$ 7,216,405	REVERSION CASH FLOW	
	PRESENT VALUES					\$ 163,625			
	DISCOUNTED PROPERTY VALUE				\$ 5,931,629				



Net Zero Proformas & After Tax Discounted Cash Flow Valuations

POST IRA DEDUCTIONS TAXABLE CASHFLOW & TAXES DUE	INFLATION REDUCTION ACT DEDUCTIONS AGAINST TAXABLE INCOME (NON CASH EXPENSES)				
	179d Energy Efficient Comm'l Bldgs Deduction (New Comm) \$ 5.00 per SF				
	\$176,400				
	Bonus Depreciation	Dep Basis	\$	1,725,000	
		Bonus Dep	\$	690,000	
	Accelerated Depreciation (Solar 1.44MwDC)	Accel Dep	\$	207,000	
		Tax Liability	\$	179,400	
	* CASH FLOW AFTER IRA DEDUCTIONS / DEPRECIATION (TAXABLE) - NOT FOR VALUATION				
	PRELIMINARY TAX RATE 21%				
	PRELIM TAXES DUE (POST IRA DEDUCTIONS / PRE IRA CREDITS)				
				(\$12,247)	(\$8,626)
					(\$95,914)
					(\$612,520)
	* CASH FLOW AFTER DEBT SERVICE + AFTER IRA DEDUCTIONS + AFTER TAXES DUE				
				\$ 46,072	\$ 82,451
					\$ 360,820
					\$ 2,304,243
					\$ 3,529,284
ITA TAX CREDIT UTILIZATION AGAINST TAXES DUE + TAX CREDIT EQUITY AVAILABLE	IRA Tax Credits Against Taxes Due				
	Ground Source Heat Pump	50%	\$	506,182	\$ 384,852
	Federal ITC Rooftop Solar	50%	\$	1,152,000	\$ 1,152,000
	Battery Storage	50%	\$	250,000	\$ 250,000
	EV Charging Infrastructure		\$	100,000	\$ 100,000
	Total IRA Tax Credits		\$	2,008,182	\$ 1,886,852
				\$12,247	\$8,626
					\$95,914
					\$ 612,520
					\$ 1,395,662
	ADD'TL TAX CREDIT EQUITY AVAILABLE FOR SALE				
GREEN FINANCING / AFTER TAX DCF VALUATION	* CASH FLOW AFTER DEBT SERVICE + AFTER IRA DEDUCTIONS + AFTER TAX - TAX CREDITS				
	CASH FLOWS FOR VALUATION				
	PRESENT VALUES				
	DISCOUNTED PROPERTY VALUE				
				\$ 7,508,391	
PRE VS POST GREEN FINANCING IRRs	PRE GREEN FINANCING				
	NET CASH FLOW: OWNER1	100.00%	CAPITAL (\$2,000,000)	\$ 327,154	\$ 171,807
	NET CASH FLOW: OWNER2	0.00%		\$0	\$0
	EQUITY IRR (OWNER1)	4.54%			
	EQUITY IRR (OWNER2)	#NUM!			
	POST GREEN FINANCING				
	NET CASH FLOW: OWNER1	100.00%	CAPITAL (\$2,000,000)	\$ 414,119	\$ 217,477
	NET CASH FLOW: OWNER2	0.00%		\$0	\$0
	EQUITY IRR (OWNER1)	8.47%			
	EQUITY IRR (OWNER2)	#NUM!			
	REVERSION CASH FLOW				
					\$ 3,448,964
					\$ 9,134,690
					\$ 207,121
					\$ 7,508,391
RECs / Offsets	UNIT PRICE				
	Electricity Offsets	MWh	\$2.50	3,000	\$7,500
	Carbon Offsets	MTCO2e	\$18.00	1,800	\$32,400
	ANNUAL COST				



Thank You! Questions?

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