



BUILDING



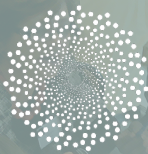
**COMMUNITY
CAPACITY**



**FOR ENERGY
DEMOCRACY**



**A DECK OF
STRATEGIES**



**DEMOCRACY
COLLABORATIVE**

COMMUNITY SOLAR



new economic institutions

Allows people who don't own their own roofs, or who don't have the capital necessary to go green on their own, to pool resources and cooperatively own a green energy power plant with other members of their community.

Technical assistance for setting up solar gardens; subsidies to enable low income participation; land grants (for instance donation of city-owned brownfields)

does it build capacity?

Provides a concrete example of community ownership of the energy economy you can point to and visit. Achieves economies of scale not possible with single family installations. Can play an important role in building community even if there is no direct financial benefit

realized for participants.

Business development can be slow; "wins" take a long time to materialize. Even with coops, need to ensure access to capital doesn't determine who gets to participate in the solar economy.

inspiring examples

Solar Holler in West Virginia: a community comes together to co-develop green power solution for local churches, creating dialogue around the post-coal economy. In **Denmark**, there is a wealth of experience with community-level cooperative ownership of wind turbines, which generate a significant portion of the country's total energy needs.



DEMOCRACY
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SOLAR PURCHASING COOPERATIVES



new economic institutions

Consumers band together to negotiate less expensive bulk pricing on solar equipment and installation fees for their homes from suppliers and contractors.

Can be facilitated by low-cost, easy options for incorporation/organization, and simple ways to distribute potential tax credits and incentives to members. Provision of technical assistance can also accelerate group purchasing.

does it build capacity?

Provides a small scale community building process that models a more cooperative economy, and potentially provides a framework for continued organizing around green energy policies.

Participation is limited to homeowners with access to money to invest in solar installation. Residential solar regulatory climate and financial context is in flux; difficult to compete with more prevalent leasing options which require less initial money down.

inspiring examples

DC Solar United Neighborhoods (DC SUN) has been helping start ward-level purchasing groups for solar energy installs since 2013, aiding hundreds of District residents to go solar and build community in the process. The umbrella organization structure makes it easier to replicate efforts in new neighborhoods by leveraging accumulated knowledge, and provides a platform for other energy activism.



**DEMOCRACY
COLLABORATIVE**

GREEN WORKER COOPERATIVES



new economic institutions

Capturing the wealth created in the green transition by making sure green jobs created in the process are owned by their workers.

policy support Ecosystem support (technical assistance, financing) for worker cooperatives; forward-thinking CBA mechanisms that help direct business to worker-owned companies; prioritization of worker cooperatives for contracts on sustainability projects at state, city, and anchor institution level.

does it build capacity?

Builds democratized economic power and opportunities for leadership development, establishes precedent for use of state support for democratized ownership.

risks & drawbacks Business development conditional on state subsidies can be fragile; business development wins take a long time to materialize, business development is inherently risky.

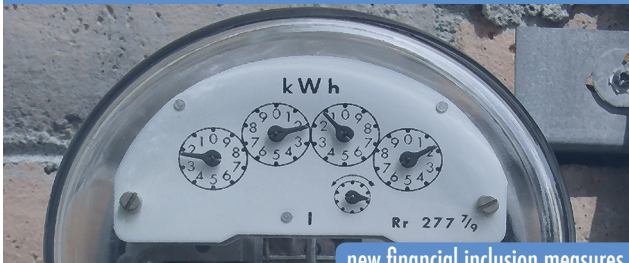
inspiring examples

Evergreen Energy Solutions, part of the Evergreen Cooperatives in Cleveland, Ohio, is a worker-owned effort to create jobs in severely disinvested communities in both solar installation and energy efficiency retrofitting; **Namasté Solar**, with around 100 workers, is a B-Corporation and award-winning workplace in addition to a worker cooperative, and has installed over 25 MW of solar power systems since 2005.



DEMOCRACY
COLLABORATIVE

ON-BILL FINANCING



new financial inclusion measures

Allows low-income residents without access to upfront capital or credit to finance energy improvements through the anticipated savings that will be realized on their lower bills.

policy support

Policies that require utilities to offer this option and that establish appropriate institutions to manage the credit that is extended with appropriate consumer protections.

does it build capacity?

Crucial for financial inclusion, but requires supplemental outreach/organizing/support mechanisms to connect people to resources and build a constituency; offers a publicly controlled/non-profit financing mechanism that sidesteps banks and private capital, and risks & drawbacks which can help strengthen and scale CDFIs.

At its heart, still a debt-based mechanism, with all the risks that entails. Relies on a complicated stack of other policies in order to work, especially for renewable generation, where (virtual) net metering needs to be in place in order to make this possible.

inspiring examples

Green Jobs - Green New York, a program in which on-bill financing makes energy upgrades available to homeowners who would otherwise not be able to afford them. Firms performing the retrofits must meet labor standards for good jobs, and local intermediaries are empowered to engage in community outreach.



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COMMUNITY BENEFIT AGREEMENTS



new financial inclusion measures

It's possible to mandate that any jobs created through state or local programs to promote renewables be good jobs, with living wages, and that these jobs be local or created with minority-owned companies.

policy support

State level certification of approved contractors, or development of structures where local community organization partners serve as party to vet contractors and enforce agreements for work done in their local area.

does it build capacity?

Establishes useful precedents around who benefits from public energy and infrastructure policy; opens up possibility for cooperation with labor around creation of good, green jobs.

risks & drawbacks

Business development that is conditional on state subsidies can be fragile. Inclusive mandates for contracting may require additional wrap-around support to develop business capacity or job readiness in marginalized communities.

inspiring examples

Green Jobs – Green NY: This New York State program makes available on-bill financing mechanisms for energy improvements, but a statewide CBA that partners with local “constituency-based organizations” on outreach and job creation, making sure the work is done by companies creating high-quality jobs that are connected to workforce development pipelines.



SUSTAINABLE ENERGY UTILITIES



new energy ecosystem institutions

A central public or nonprofit clearinghouse helping residents and institutions connect to information, resources, and subsidies around energy efficiency and renewable energy generation.

policy support

Establishment and funding of public or nonprofit SEUs; extension of bonding authority to SEUs to enable long-term; large scale financing of clean power.

does it build capacity?

Unclear; depends on degree of popular participation in the SEU structure as well as the scale of its efforts, and whether or not it aims to supplement or challenge and displace the corporate energy sector. Regardless, it's a good base/container to build further initiatives within, especially if chartered with an explicit mission around low-income community inclusion.

risks & drawbacks

Lots of moving parts—political, financial, and organizational—must be assembled and aligned to launch a SEU. Needs real resources to drive projects and create momentum at scale.

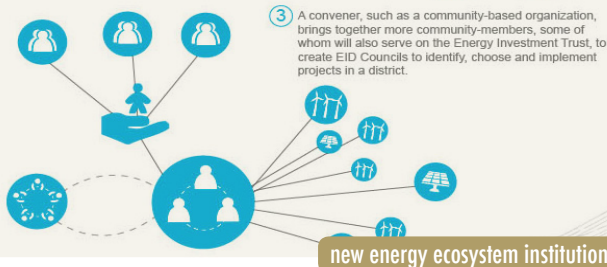
inspiring examples

The **Delaware Sustainable Energy Utility (DESEU)**, chartered in 2007, provides a central clearinghouse and financing authority for energy efficiency and renewable energy projects, helping both state residents and public institutions.



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ENERGY INVESTMENT DISTRICTS



The Center for Social Inclusion's model for a place-based, participatory entity to channel investment into green energy projects that directly benefit marginalized low-income communities and communities of color. Basically a refinement of the SEU, combining public bonding authority with participatory democracy, with a more explicit politics and a tighter focus on moving capital into underserved communities.

policy support

Requires legislation to establish and capitalize. Also requires sources of operating funds as well as alignment of other subsidies and financing possibilities.

does it build capacity?

Yes, the EID is designed to do so, from the ground up, with explicit inclusion and participation mechanisms. The place-based nature facilitates deep long-haul organizing at the community level.

risks & drawbacks

Lots of moving parts—political, financial, and organizational—must be assembled and aligned in order to create EIDs. Challenge to keeping communities, not technical infrastructure, foregrounded.

inspiring examples

States like Ohio, Arkansas, and Connecticut have created energy improvement districts that operate in a similar fashion to EIDs, but lack an explicit focus on minority and low-income communities. They also lack community councils to provide mechanisms for popular oversight and participation.



REVOLVING LOAN FUNDS



new energy ecosystem institutions

Establishes a source of credit that families and/or community institutions can access in order to make energy efficiency improvements or switch to renewable power generation, where the money used is paid back into a growing fund.

policy support

Establishment of a standalone fund, or partnership with a community development financial institution (CDFI).

does it build capacity?

A self-sustaining loan fund is arguably more cost-effective than one-time subsidies, and can be less politically fragile. Establishes a community-based financial institution, which can also serve as a economically self-sustaining hub to convene stakeholders and align technical assistance, community outreach, and job quality monitoring.

risks & drawbacks

Like any financial institution, a revolving loan fund is complicated to establish. Its dependence on debt as primary mechanism may make inclusion of lower-income households more difficult or less likely to generate the returns necessary to become self-sustaining.

inspiring examples

Clean Energy Works Portland (Oregon), started with a federal grant in 2009, ran a pilot revolving loan fund program that made 500 loans and supported high-road green jobs. Rebranded as Enhabit, it continues this work in partnership with local credit unions and nonprofit lenders.



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GREENING COMMUNITY INSTITUTIONS



green subsidy

Helping churches and other place-based, community-rooted non-profits to upgrade energy systems and implement renewal power generation.

Financial and technical assistance in the form of grants; creation of revolving funds offering below-market financing options; lifting of regulatory hurdles that get in the way of creative community-based funding mechanisms.

does it build capacity?

Such projects can have a powerful symbolic value as a visible example of the inclusive green economy when the institution in question is a real, underresourced grassroots community organization, which in turn can build neighborhood awareness of the need for an equitable green transition. Less community capacity is built when these kind of subsidies and support go to larger, more well-resourced non-profits, although the ecological payoff may be higher at these larger scales.

Needs to be structured to enable participation from less-resourced community institutions, not the ones best positioned financially and organizationally to take advantage of subsidies.

inspiring examples

In West Virginia, the **Solar Holler** project used a creative crowdfunding mechanism drawing from residential energy savings to finance a solar array on a local church, providing a powerful and visible community vision of a transition beyond coal.



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ENERGY EFFICIENCY SUBSIDIES



green subsidy

Go after clean power low hanging fruit by incentivizing less energy use through cost-effective upgrades (better light bulbs, less drafts, etc.)

Discounts on utility bills for energy efficiency investments; tax rebates on investments made in efficiency; extension of below-market financing, direct subsidies for improvements.

does it build capacity?

If structured correctly, can result in significant creation of good jobs in a sector that is accessible to entry-level candidates without extensive training, the ancillary benefits of which can be captured by community based organizations to increase their capacity as economic developers.

Subsidies are politically fragile: any long-term community infrastructure built around the assumption they will continue to exist indefinitely is exposed to the risk that they will not. Green jobs are not necessarily good jobs: additional investments in inclusive hiring pipelines, job quality standards monitoring, and training are necessary.

inspiring examples

In operation since 1976, the Department of Energy's **Weatherization Assistance Program** provides grants to states to help low-income families save energy. Major allocations of additional stimulus funding to the program after the onset of the 2007-08 financial crisis created thousands of much-needed green jobs.



DEMOCRACY
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LOW INCOME ENERGY SUBSIDIES



green subsidy

Money for low-income households and multi-family affordable housing development that enables lower cost/free renewable energy installation for people who would normally not have access to lower cost energy.

Use assistance to low-income communities as a strategy to reduce carbon emissions; stipulate that work funded by such subsidies connects to an inclusive green jobs training program.

does it build capacity?

Maybe. Such policies establish clear and explicit ways to acknowledge need to move resources and ownership to low-income communities, and have direct material benefits, but build either atomized single-family ownership or help subsidize developers of affordable housing, not residents themselves. Incorporation into a larger organizing frame is essential.

Strategies built on availability of continuing subsidies can be politically vulnerable, assumes stable regulatory context with favorable incentives for distributed solar production.

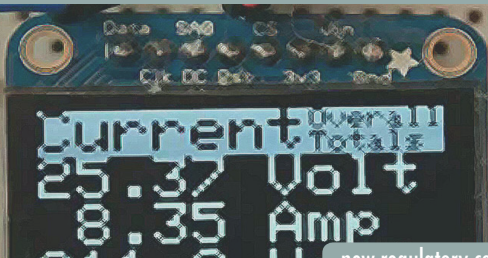
inspiring examples

SASH: California's Single-family Affordable Solar Homes Program provides low-to-no cost solar power systems to low-income households, using a barnraising model for installation that gives valuable experience to volunteers and green job trainees. Over 5,000 households have gone solar under the program.



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NET METERING



new regulatory context

Incentivizes green energy production by allowing families and institutions to run their energy meter backwards, selling excess power they generate back to the utility at the retail price they pay, rather than the lower rate paid to wholesale producers.

Policies that mandate net metering; expansion of existing net metering beyond just institutions to households.

does it build capacity?

In itself, net metering does not really build power, but it can facilitate or enable further regulatory developments that might. It does help displace corporate energy generation in favor of decentralized production of renewable power.

risks & drawbacks

Without complementary policies and institutions designed around inclusion, access to capital and economic privilege will determine who participates in and benefits from the solar economy. Political opposition to net metering from existing utility interests is likely to continue. Hypothetically, the savings realized by consumers able to invest in solar generation could mean lower income communities pay a higher share of the costs of grid maintenance.

inspiring examples

Only a handful of states lack net metering laws, although there is significant variation on the technical details in the various state policies. Net metering has been a key driver of the over one million solar rooftops in the US.



PARTICIPATORY PLANNING



new regulatory context

Developing the structures and processes that ensure the communities affected by dirty energy production get **policy support** a real say in what the path to clean power looks like.

Funding and technical assistance for local planning efforts; effective use of existing mandates for low-income community input in policies like the Clean Power Plan.

does it build capacity?

Yes, if done right. Participatory planning processes offer chances to educate and engage communities on key issues and to establish the precedents and capacities for meaningful popular participation in decision making. More participation can in turn lead communities **risks & drawbacks** to be more invested in new green energy policies.

Toothless, nonbinding stakeholder processes can serve as public relations exercises that develop no real decision making capacity at the community level, and which diminish future expectations around the results of participation.

inspiring examples

Faced with intransigence from their state government on the implementation of the federal Clean Power Plan, **Kentuckians for the Commonwealth** helped build a popular consultation and planning process to collectively imagine a post-coal future for Appalachia. While not officially sanctioned, such processes can nevertheless help organize and mobilize communities.



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VIRTUAL NET METERING



new regulatory context

Simplifies the benefits realized from community solar projects by directly helping participants save money on their electric bill based on the retail price of the renewable energy they helped produce, even if that power was generated somewhere else than on their own home's roof.

policy support

There is much variation in virtual net metering policy: some enabling policies are very flexible, with no assumptions about who will benefit, while others emphasize community through constraints on the geographic footprint and community scale of projects.

does it build capacity?

Like "regular" net metering, virtual net metering does not in itself increase community capacity, but it can enable the creation of community-based institutions for power generation, and crucially decouples participation in renewables from home ownership.

risks & drawbacks

Without complementary policies explicitly designed around inclusion, access to capital and economic privilege could mean a virtual net metering regime that only benefits affluent renters.

inspiring examples

Virtual net metering is less common than regular net metering—laws enabling it exist in California, Connecticut, DC, Maine, Maryland, Massachusetts, New Hampshire, Pennsylvania, Rhode Island, Vermont, Colorado, Delaware, Minnesota, New York, and Wisconsin (as of October 2015).



MUNICIPALIZATION



new regulatory context

Takes a local energy system out of private corporate control and puts it under public control as a municipally-owned enterprise.

policy support

Given the regulations at the state level, municipalization may or may not be possible. Who sets the price for the infrastructure to be municipalized (courts? a public utility commission?) will also vary. In general, state level policies that permit, support, and even encourage localities to municipalize their energy systems are needed.

does it build capacity?

Yes, it empowers local communities to take control of their own energy systems and allows decisions regarding sources of energy and placement of energy related infrastructure to be made at the local level with resident involvement through the democratic process.

risks & drawbacks

Municipalization efforts often take a long time, require considerable up-front costs, and involve a political and legal fight with the incumbent electric provider.

inspiring examples

Boulder, Colorado's effort to municipalize the city's electrical system in order to more rapidly prioritize sustainable energy is still underway, despite large amounts of corporate money spent in opposition by the incumbent provider, Xcel. More generally, in Nebraska, all power statewide is provided by either publicly-owned utilities or by electric cooperatives.



COMMUNITY CHOICE AGGREGATION



new regulatory context

According to the U.S. Department of Energy, a CCA is a “state policy that enables local governments to aggregate electricity demand within their jurisdictions in order to procure alternative energy supplies while maintaining the existing electricity provider for transmission and distribution services.”

policy support

State regulatory context determines whether or not community choice aggregation is possible, and whether the local community can use its aggregated purchasing power to finance the construction of local renewable power sources.

does it build capacity?

Yes—by assuming control over power purchasing, local communities can vastly increase democratic oversight and involvement in the green transition, while avoiding the costs of a full municipalization, in which the physical transmission assets have to be purchased.

risks & drawbacks

Possible drawbacks include: Higher rates, additional municipal administrative costs, local resident objections—especially if the CCA is, like most, opt-out rather than opt-in.

inspiring examples

CCA's are possible in California, New York, Massachusetts, Ohio, New Jersey, Rhode Island, and Illinois. The recent launch of a San Francisco CCA, with a corresponding shift towards green power demand, helped close the Diablo Canyon nuclear plant by reducing demand for dangerous power.



PUBLIC GREEN POWER PURCHASING



new regulatory context

Moving the procurement of electric power for public institutions (like school boards and city governments) away from dirty energy with negative impacts on the planet and local communities.

policy support

Mandates at the state level for renewable targets can drive local authorities towards green energy.

does it build capacity?

While the policies themselves may not build community capacity to control the energy system, divestment-style campaigns against specific target institutions are winnable and have a clear narrative that gets people thinking about larger possibilities in the energy system. These victories shifting institutional behavior can drive engagement in generalizing these new priorities through policy making.

risks & drawbacks

“Clean power” in local mandates needs to be defined so it is truly sustainable—no nuclear, no incineration.

inspiring examples

In **Baltimore, Maryland**, a state-level policy mandated targets for renewable energy use for public authorities—but included incineration as a “green” option for power purchasing. A high-school student led organizing campaign demanded and won truly sustainable purchasing from local school boards and non-profit cultural institutions, and consequently helped halt construction on a major new incinerator project.



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CAP AND DIVIDEND



new regulatory context

Rather than financializing the right to pollute (as in “cap and trade”), treat the atmosphere as a commons, and make polluters pay a fee that is shared as guaranteed basic income or as a means-targeted subsidy to offset potential higher energy costs. The charge to pollute increases as total pollution decreases.

policy support

Establishment of pollution permit/fee structure and system for dividend payments. The permit/fee apparatus can be modeled on parts of existing cap and trade arrangements.

does it build capacity?

Could help generate popular support for clean power—it’s hard to argue with a check in the mail. But does not specifically help marginalized communities, unless part of the fees collected are diverted into sustainable energy alternatives economically benefiting those communities, or unless the dividend is means-tested (like the EITC). Has potential to break the economic dependency some communities have on extractive energy sectors.

risks & drawbacks

Doesn’t necessarily address geographic disparities in dirty power generation. Needs to be structured so that it reduces dirty power over time, rather than politically incentivizing its perpetuation.

inspiring examples

An imperfect precedent is **Alaska’s Permanent Fund**, which provides a dividend to residents through charges levied on oil extraction, but which does not incentivize clean power.



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DEMOCRATIZED GRID MANAGEMENT



new regulatory context

An independent grid manager who preserves equal access and coordinates resources from decentralized **policy support** and distributed sources of energy.

State legislation restructuring the energy market and establishing an independent grid operator with a specific energy democracy mandate and grid planning responsibilities.

does it build capacity?

Unclear: the independent grid operator is supposed to be a non-profit insulated from interest groups (including existing utilities). If properly structured to focus on energy democracy, decentralization, and distributed renewable energy, it could help shelter local communities and residents building an equitable energy economy from push back **risks & drawbacks** by existing utilities and energy interest groups.

If not structured correctly, it could be weak or ineffectual. If not focused on energy democracy principles and goals, it could reinforce the use of traditional energy sources while sidelining concerns around equitable access.

inspiring examples

Partial precedents exist with the California Independent Systems Operator, New York ISO, and the New England ISO. The Institute for Local Self-Reliance's "Utility 3.0" model outlines how to supplement flexible smart grid structures with local control and equitable access to the energy system.



SMART GRIDS



new regulatory context

Applying internet technology and two-way communication to the electricity distribution system in order to monitor demand, increase efficiency, reduce service interruptions, and integrate renewable and distributed sources of power.

policy support

State legislation requiring investment in smart grids; provide incentives to utilities to invest in smart grids without raising rates or pushing costs onto consumers; establish privacy and transparency standards with regards to the collection and use of data.

does it build capacity?

Not really, but it does allow consumers to start actively participating in management of the electrical grid.

risks & drawbacks

If not properly regulated, smart grid costs may be pushed onto consumers. Costs may be several times higher than projected. Unless properly structured, administrative costs could outweigh energy savings. Peak pricing programs associated with smart grids may harm vulnerable members of society, like those who require medical devices to run 24/7. There are privacy concerns with regards to data collection and use.

inspiring examples

The smart grid system in **Chatanooga, Tennessee**, created by the municipally-owned utility, has not only realized significant cost savings for city residents, but has led to the creation of a pathbreaking citywide gigabit fiber data network.



MICROGRIDS

Distributed Energy Resources



Substation
Energy Storage



Customer
Energy
Management



Microgrid
Controller

Feeder
Automation

Home
Energy
Storage



new regulatory context

A "microgrid" is a set of power generation, storage, and transmission facilities that can connect and disconnect from the larger grid, creating a more resilient energy system and one in which local control can be exercised over the entire circuit of energy creation, purchasing, sale, and utilization.

State legislation recognizing microgrids and clarifying the rules of interconnection and coordination with the larger electrical system; funding for design and technical assistance.

does it build capacity?

It depends on who the microgrid is built for. A campus microgrid designed to provide resilient, uninterrupted, green power to a university or hospital, while useful, may not, whereas a microgrid implemented to create energy sovereignty and community control in a low-income neighborhood certainly will.

Incredibly uncertain regulatory environment, lack of available funding, severe possibility of pushback from centralized utilities.

inspiring examples

Vermont's **Stafford Hill Solar Farm** is a completely solar & battery powered microgrid which provides resilient green energy to the city of Rutland while generating revenue from cost savings and sales of excess energy. The **Hunters Point Community Microgrid** in San Francisco aims to create both resilient green energy and green jobs in the low-income neighborhood.



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STRATEGY CARD TEXT BY
JOHN DUDA,
THOMAS HANNA,
AND MATTHEW BURKE
FOR THE
DEMOCRACY COLLABORATIVE
<http://democracycollaborative.org>

with inspiration from the work of People's Action and drawing on the work of many, especially Anthony Giancattarino at the Center for Social Inclusion, John Farrell at the Institute for Local Self-Reliance, and Jacqui Patterson of the NAACP Environmental and Climate Justice Program.

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