executive summary

energy democracy

community-scale green energy solutions

CSI CENTER FOR SOCIAL INCLUSION
If the 34 million American households of color* resided in a single state, their household electricity demand would exceed that of all the residential, commercial, and industrial users in California, the state with the highest electricity demand in the country. Households of color demanded as much as 385 billion kilowatt hours of electricity in 2009. Based on the most recent retail price data available, this translates to $41 billion in electricity buying power. This buying power will likely climb for the foreseeable future. The number of households of color in the United States is projected to increase to 56 million by 2030 and reach an estimated 80 million by 2050. Communities of color are clearly significant consumers of electricity. Could they be significant producers, too?

With worldwide demand for energy exploding, the race is on to make greater use of renewable energy. Wind, solar, geothermal, and bio-fuels offer clean and potentially inexhaustible supplies. Technology is advancing rapidly toward making these energy sources accessible and competitively priced.

Yet scholarship, policy, and market innovation have not explored community-generated renewable energy. Nor have we considered communities of color as part of our energy future. Now is the time to do so. This paper outlines an approach to Energy Democracy. The goal of Energy Democracy is to create community-owned or controlled renewable energy and invest that capacity with democratic principles that foster interdependence, conservation, wealth-building, political autonomy, and economic opportunity.

Small-scale, locally owned or controlled renewable energy projects can be structured to allow local investment, sweat equity, and a transparent process for setting fair prices.

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3 Based on national residential retail electricity price data 2007 by the Energy Information Administration.

Energy Democracy is a policy framework with the goal of transforming neglected and isolated communities—often poor, and often communities of color—into energy producers who contribute to the nation’s overall capacity, add clean energy to the grid, enhance their economic and political ties across the region, and supply their own energy needs. Without intervention, communities of color risk missing a transformative opportunity for a meaningful role in America’s changing energy economy. With people of color fast becoming half of the national population, this would be a loss for both communities of color and the nation.

This white paper explores the challenges and opportunities communities of color face as participants in a renewable energy economy. With the right ownership models, clear and supportive tax incentives and finance policy, reformed land use and zoning policies, and equitable access to the grid, emerging technology allows communities of color to establish themselves as power producers. This white paper is focused on community-owned, small-scale renewable generators in electricity markets.
The following graphs suggest the potential of community renewable energy generation today:

Energy Supply and Demand Overview
Source: Annual Energy Outlook 2010 Energy Information Administration

Projected Renewable Capacity Growth
(excludes conventional hydropower)
Source: Annual Energy Outlook 2010 Energy Information Administration

We need more renewable energy to keep up with our consumption

The good news is that renewable energy production is growing now and will keep growing
Electricity Generators 2007 Snapshot
Source: Form 860/1, Energy Information Administration

SMALL-SCALE GENERATORS*
- 45% Use Renewable Energy as Primary or Secondary Energy Source (3,970)
- Two-thirds have capacity of 2 megawatts or less (5,870)

TRADITIONAL GENERATORS
- 18% Use Renewable Energy as Primary or Secondary Energy Source (2,536)

* Small-Scale Generators are five megawatts or less in nameplate capacity. (Nameplate capacity is the maximum rated output of a generator under specific conditions designated by the manufacturer. Generator nameplate capacity is usually indicated in units of kilovolt-amperes (kVA) and in kilowatts (kW) on a nameplate physically attached to the generator.)

But there’s still plenty of market share to claim from big producers

Nameplate Capacity (2007)
Source: Form 860/1, Energy Information Administration

<table>
<thead>
<tr>
<th>(Megawatts)</th>
<th>Small-scale generators</th>
<th>Traditional generators</th>
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<tbody>
<tr>
<td>1,200,000</td>
<td>13,781 MW</td>
<td>1,109,002 MW</td>
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<tr>
<td>1,000,000</td>
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<td></td>
</tr>
<tr>
<td>800,000</td>
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<tr>
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<tr>
<td>400,000</td>
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<td></td>
</tr>
<tr>
<td>200,000</td>
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</table>

For every 80MW of electric capacity held by traditional generators, 1MW is held by small-scale generators

* Small-scale generators are five megawatts or less in nameplate capacity.
Annual Electricity Purchasers by Sector 2003–2007 (avg)
Source: Form 860/1, Energy Information Administration

<table>
<thead>
<tr>
<th></th>
<th>TRANSPORTATION</th>
<th>INDUSTRIAL</th>
<th>COMMERICAL</th>
<th>RESIDENTIAL</th>
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<tr>
<td>(Thousands)</td>
<td>1</td>
<td>750</td>
<td>16,916</td>
<td>120,645</td>
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</table>

Households are the biggest block of users

Retail Electricity Price by Sector 2003–2007
Source: Form 860/1, Energy Information Administration

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
<th>Transportation</th>
<th>Industrial</th>
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<tr>
<td>(Cents per kilowatt hour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>$0.00</td>
<td>$0.02</td>
<td>$0.04</td>
<td>$0.08</td>
</tr>
<tr>
<td>2004</td>
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<td>$0.12</td>
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<tr>
<td>2007</td>
<td>$0.08</td>
<td>$0.10</td>
<td>$0.12</td>
<td>$0.15</td>
</tr>
</tbody>
</table>

But they pay the most
The expense for electricity is highest for African Americans both as a percentage of the utility bill... and in whole dollars.
Nationwide Average Electric Bill By Component
Source: FERC Staff Report on Cost Ranges for the Development and Operation of a Day One Regional Transmission Organization Docket No. PF04-16-000 page 25 Figure 5 Average Retail Bill Impact: Nationwide (% of Total $/kWh) October 2004

($ per kWh)

- 31% Distribution
- 8% Transmission
- 61% Production
- 0.3% Regional Transmission Organization (RTO)

The cost of production is by far the largest part of our electricity bill
Communities of color that become energy producers will transform their relationships with the larger regional economy, bringing improved infrastructure, increased wealth, and greater political interdependence between communities of color and their neighbors.

This potential requires informed leadership and innovative policy to become a reality. The following recommendations represent the first steps.

Priority Recommendations:

- **Make community renewable energy policy a federal priority**
  Decision makers at all levels will respond to federal measures and incentives that signal the national importance of community renewable energy policy. These measures and incentives should be explicitly connected to national renewable energy goals. Agencies including the Federal Energy Regulatory Commission (FERC) and the Environmental Protection Agency (EPA) must direct public resources to appropriate projects, which, in turn, will draw private investment.

- **Support Feed-in-Tariffs**
  The Federal Energy Regulatory Commission and the state utility commissions must work together to support Feed-in-Tariffs (FiT). To stimulate renewable energy generation and consumption, FiT requires utilities to purchase electricity from renewable electricity system owners at long-term, fixed rates established by utilities and/or regulatory commissions. The program can pay producers higher than market rates to put their renewable energy on the grid based on factors such as the technology used or how much of the project is locally owned. FiTs are widely used around the world and are emerging in states (Vermont, Washington, and California) and cities (Gainesville, FL, and Sacramento, CA) across the country. Federal leadership is essential to support state and municipal incentives to ensure that FiT programs reach community-scale projects. As suggested by the National Renewable Energy Laboratory (NREL), FERC should conduct an administrative inquiry and rulemaking process to create clear guidelines for states to set prices that utilities pay to producers under a FiT program. Congress should amend the Public Utility Regulatory Policy Act (PURPA) and the Federal Power Act (FPA) to remove or reduce existing statutory constraints to state-level FiT.

- **Create legal structures to facilitate community energy production**
  Green jobs and equity ownership are mutually reinforcing building blocks of political and economic power. The Evergreen Initiative in Cleveland is an example of how community hiring initiatives, green jobs, and equity ownership can successfully come together. No single structure is a magic bullet. However, states must accommodate legal structures with simple, transparent rules and incentives for owner/employees to own more as they work. Legal structures must also allow for a range of investors to participate in community-scale ventures without burdensome regulations.

- **Prioritize community renewable energy policy in land use decisions**
  The Federal Interagency Partnership for Sustainable Communities must support equitable Energy Improvement Districts (EID). Congress approved $150 million in FY 2010 for HUD as part of the interagency effort to support regional planning grants and capital funds to implement the plans. HUD and partner agencies should give priority status for funding to Energy Improvement Districts that develop community-scale renewable facilities, use municipal funds to pay for the construction of locally sited power grids, rely on participatory planning processes, adopt inclusive zoning, and set social and economic equity goals.
The Center for Social Inclusion works to unite public policy research and grassroots advocacy to transform structural inequality and exclusion into fairness and inclusion for all. We work with community groups and national organizations to develop policy ideas, foster effective leadership, and develop communications tools for an opportunity-rich world in which we all will thrive.

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