Community Choice, Public Power, and Energy Conservation:

Democracy, Sustainable Consumption, and the Problem of Scale

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Many cities in the U.S. and other wealthy industrialized countries have faced tremendous economic dislocations when global competition has driven locally owned companies out of business. To address the dislocations, many city and state governments have adopted a production-oriented and export-oriented development strategy, which focuses on attracting manufacturers as a fundamental basis for the regional economy. Where industrial corporations, state government agencies, and research universities converge around an emergent high-tech industry, regions have succeeded with the production-oriented strategy of building a new industrial cluster. However, there are also many cases where companies have pulled up stakes after the local incentives have run out, and there are many cities and states that lack the financial resources to build an internationally competitive, high-tech industrial cluster. A second strategy of regional development, which closely tied to consumption, has emerged: localism. In this paper I will outline what localism means in the United States and explore its potential for addressing the problem of consumption and sustainability.

Background

In *Confronting Consumption*, Princen and colleagues (2002) argue for an approach to consumption and sustainability that understands sustainability as an ecological problem of exceeding carrying capacity due to overconsumption. The approach is broadly consistent with the concerns raised by production theorists such as O'Connor (1998) and Schnaiberg and Gould (1994), who suggest that in a capitalist economy the search for continued profits creates an economic growth logic that tends to lead to increasing deposits and withdrawals from the global

ecosystem. As the economy becomes more globalized, the increasing distance between producer and consumer and the spread of industrialized levels of consumption creates additional ecosystem burdens. The long commodity chains of a globalized economy not only require higher levels of energy consumption but also break down feedback loops between consumers and producers, so that the environmental impact of consumption is rendered invisible (Princen 2002). The argument suggests that a relocalization of consumption could contribute to awareness of the ecosystem impact of overconsumption and potentially to a reduction in consumption.

The dominant model of economic development for metropolitan regions (or somewhat larger areas, such as North American states) for most industrialized countries has become the technopole or high-tech industrial cluster (Castells and Hall 1994). The model is based on building the triple helix of university-industry-government linkages to strengthen export-based, high-tech manufacturing industries (Etzkowitz and Leydesdorf 1998, 1999). In order to meet the capital demands required for constant innovation and manufacturing at a quantity and technological complexity that is globally competitive, technopole firms generally require substantial investment from publicly traded corporations, or they become publicly traded after an initial start-up phase. Because the technopole is based on the model of the publicly traded corporation, the organizational emphasis is on short-term earnings growth, and general ecological considerations in the production process and product life cycle tend to be sidelined with respect to the competitive quest for market share and shareholder value. As I have argued elsewhere, there are some instances of "green technopoles," such as the Freiborg solar energy cluster, and the diffusion of green technology can potentially reduce overall environmental impacts (Hess 2003). However, in general the companies that produce and sell green technologies do so under assumptions of continued economic growth, and their metrics for success remain conventional ones that do not measure the complex relationship among economic growth, aggregate growth in consumption, and environmental degradation. Although a sufficiently high level of technological innovation could allow economic growth to coincide with reduced environmental degradation, in practice the greening of industry tends to divert attention from the general problem that human societies have exceeded "sustainable limits" in the ecological sense outlined by Daly (1990).

An alternative regional economic development strategy, localism, holds out some promise as a policy framework for addressing the issue of overconsumption while

simultaneously solving the pressing political problem of elected local officials, who need to maintain healthy regional economies. Because localism inverts the long supply chains of the global economy, it reduces the energy costs of transportation, and it also reduces the political distancing of consumers from awareness of their environmental impact. Furthermore, from the production perspective, the economic institutions of the localist economy—local government agencies such as transit and public power agencies, nonprofit organizations that produce goods and services for local use, and the local, independent, small business community—are generally not publicly traded. As a result, they tend to be less oriented toward short-term earnings reports and the managerial imperative of constant, high growth. In other words, because of the organizational flexibility of localist institutions that makes it possible for more complex organizational missions to exist, localist institutions have a structural potential to develop an "emancipation" of environmental values, including concern with overconsumption, from profitability values. The conflict between the potential that Mol outlined for the ecological modernization of large industrial corporations and the skepticism that the treadmill of production theorists had for such potential as an empirical phenomenon (at least for their American case with publicly traded corporations) could, at least in theory, be resolved in the counter-economy of localist institutions (Mol, 1995; Pellow, Schnaiberg, and Weinberg 2000; Scheinberg, 2003; Weinberg, 1998).

Before proceeding to a discussion of some case study material that will evaluate the potential for localist institutions to have a significant impact on both the quantity and quality of consumption, it is helpful to outline in more detail what is meant by the term "localism" and its ambiguous connection to environmental and justice issues. To date, the discussions of localist institutions in the literature on sustainable consumption have done an excellent job of highlighting it as an alternative model but have not yet analyzed it as a coherent and broad phenomenon (e.g., studies of local currencies and off-grid power by Helleiner, 2002, and Tatum, 2002). Likewise, although localism pays attention to the provenance of commodities, it cannot be subsumed under commoditization theory. Manno notes that one of the attributes of high-commodity potential products is mobility, and conversely he notes that low-commodity potential products are "inherently local" (2002: 97). However, the concept of localism draws attention not so much to the commodity type per se as much as to the ownership and control of the organization that produces and sells the commodity, as well as the broader relationship between the regional economy and the global economy. As a result, the degree of

commoditization of a product is less important than the issue of the location of and ownership structure for its producer, retailer, and consumer.

Furthermore, localism cannot be regarded merely as a consumer movement. Although buy-local campaigns attempt to redirect consumer expenditures from nonlocal retailers and producers to local alternatives, the driving force of localist policies and campaigns comes less from self-organized consumer groups than from the small-scale, alternative triple helixes of the local small business, nonprofit sector, and government. Small farmers and locally owned, independent retailers have especially embraced localism through the sponsorship of buy-local campaigns and local first days. Independent retailers have also supported the exposure of unfair labor practices at large, international retail chains, and in many cases they have provided the backbone of support for city governments that have passed ordinances against formula businesses and rejected plans to build category-killer superstores. Since the mid 1990s the small business organizations in the U.S. have congealed into two national associations. The American Independent Business Alliance (2006) began in 1997 as an alliance of small businesses in Boulder, Colorado, and it has since spread to develop over two dozen chapters in cities across the country. BALLE, or the Business Alliance for Local Living Economies (2002), emerged in 2001, after a group of entrepreneurs associated with the Social Ventures Network became interested in supporting small, privately held businesses at a local level. Whereas the American Independent Business Alliance focuses on the needs of Main Street retailers, the mission of BALLE embraces a broader, progressive political agenda of community stewardship, fair treatment of employees, and environmental sustainability. BALLE chapters sponsor local first campaigns for retailers, but the local BALLE chapters are organized around “building blocks” of the local living economy that include retail along with other industries, such as finance, construction, and manufacturing (see Hess 2005a, 2005b, 2005c).

In contrast with an emphasis on commodity type or on the consumer per se, theorists of localism such as Jane Jacobs (1969) and Michael Shuman (2000, forthcoming) have emphasized import substitution as the defining feature of localism. By analyzing the metropolitan or regional economy as if it were a national economy, the aggregate consumption of a region can be broken down into the portion that is occurs through locally owned and non-locally owned institutions. The analysis reveals economic sectors where a strategy of import substitution can redirect local consumption to local businesses, thereby generating new jobs and other positive externalities for the regional economy. Clearly, import substitution can be configured as an

economic development strategy that is complementary to the export-oriented strategy of the technopole. Furthermore, as Shuman recognizes, there are degrees of localism. In addition to not consuming at all, import substitution in its most pure form entails buying locally made products from local sources sold through locally owned retailers. The purchase of organic foods grown from local inputs that is sold in farmers' markets, or the investment of savings in a locally owned credit union that in turn invests in locally owned businesses, are two examples that approximate the pure type of localism. Yet, there are also hybrid forms, such as the purchase of nonlocally manufactured goods from locally owned retailers. Locally owned, independent retailers must offer either different categories of products than those produced in the big box superstores (including products from local sources or nonlocal, localist institutions), or they must offer a package of knowledge and service that compensates for their price premium on equivalent, nonlocal products. They may also be able to educate consumers about systematic mischarging and the use of loss leaders in the chain stores.

As an economic strategy of regional development localism has several limitations. To begin, the strategy works better in some industries than others. It is relatively easy to identify locally owned alternatives such as locally owned banks and credit unions, public transportation, and farmers' markets and food cooperatives, whereas the strategy of developing a locally owned and locally oriented manufacturer of electronics goods or automobiles is much less likely to be feasible, unless it is in the refurbishing and used goods business. Localism is most developed in the agriculture and food sector, where there is also a substantial literature on sustainable local agricultural networks, including some that is addressed to the issue of sustainability and consumption (e.g., Cohen, Comrov, and Hoffner 2005; Goodman and Goodman 2001).

A second limitation of localism is that its primary goal is not sustainability. As a social and economic phenomenon localism may fit well with some of the locally oriented sustainability initiatives of international institutions, such as Local Agenda 21 (Cohen, 2001; Murphy, 2001). However, given the emphasis on import substitution and ownership, localism cannot be subsumed under the rubrics of sustainability and consumption. Sustainability values are most prevalent in the local food networks, reuse (building materials) centers, green building contractors, and community media, but they are less evident in the locally owned, community-oriented finance, retail, and health-care businesses. In other words, green localism is only a subset of localism, and in some cases there may even be wariness of attaching environmental

values to the local business enterprise. For example, in one of our interviews we learned that some local retailers in Austin were wary about becoming too closely associated with local environmentalism for fear of alienating conservative customers. However, although it may be the case that localism is not inherently green, there are several inherent valences toward environmental sustainability: 1) because supply chains are shorter, less is spent on energy for long-distance transportation costs; 2) because the owners of local businesses live in the community, they are more likely to be responsive to grassroots pressure to resolve worst environmental practices, such as local pollution (a version of the distancing hypothesis of Princen, 2002); and 3) because localist businesses are privately held, they have more flexibility to think about the long term and to incorporate environmental values into their mission than publicly held companies, which are legally obligated to maximize short-term shareholder benefit.

In a similar way, localist institutions are not necessarily just. Small businesses can be bastions of nepotism and particularistic employment practices, whereas large corporations tend to have more formalized and universalistic human resources policies. However, some large corporations, especially at the upper levels of management, can also be bastions of privilege for men and dominant ethnic groups, and likewise the growing evidence for discriminatory employment practices for some of the large retail corporations has attracted increasing attention. In contrast, the small business sector offers opportunities for women and members of ethnic minority groups who wish to pursue entrepreneurial ambitions, and some of the locally owned corporations such as reuse centers (mostly the nonprofit ones) incorporate community service and job training into their mission. Rather than focusing directly on alleviating poverty or providing equal access to jobs across social divisions such as race and gender, localism is framed primarily as a democratic project of generating economic and political sovereignty for a local region. One of the most common arguments in favor of localism is the benefit of the multiplier effect of purchases from locally owned businesses. Studies suggest that two to three times the amount of money spent at a locally owned retail stores recirculates in the region in comparison with a national retailer (e.g., Civic Economics 2003). If the consumer expenditures can be recaptured and recirculated by locally owned institutions, there is a promise for economic development that is not dependent on global corporations or the federal government. Such economic development can, in principle, enhance the equity of regional economy, but it does not necessarily do so.

A fourth potential limitation of localism is that while small may be beautiful, it is unclear how important it is. This is a key issue for the broader question of finding economically and politically viable ways for addressing overconsumption before ecological collapse plunges the world into starvation, warfare, and epidemics. Many localist institutions—such as farmers' markets and community-supported agriculture farms—can document impressive growth rates since the 1970s, but they remain relatively small niches when placed against the backdrop industries. In fact, the lack of economic viability and the resources to fund green technological innovations of an earlier wave of localist institutions was one motivation for Joseph Huber's turn to ecological modernization theory, with its focus on the greening of large corporations (Mol 1995: 36). If localism is little more than a feel-good response of the countercultural middle class, then its net political effect could be negative, in ways that would follow Maniates's argument (2002) about the counterproductive effects of the individualization of environmental responsibility.

An example of the limitations of localist institutions can be seen in the case of the home power movement, that is, a consumer movement that attempts to substitute grid-supplied power with power that is produced on site (Tatum 1995, 2002). First, off-grid or home power is not necessarily green. Some of the off-grid energy sources—such as wood-burning stoves for winter heat—may be technically labeled renewable energy sources, but they are sources of particulate emissions and greenhouse gases. Frequently, off-grid systems combine renewable energy sources with fossil fuels such as propane tanks for cooking and heating. Second, the home power movement does not address directly issues of social justice. The movement does have a tradition of mobilization for reforms in regulations that govern grid-interconnect, and there are some exemplary cases of installations that benefit low-income homes and organizations. However, the home power movement has more of a flavor of a home hobby for the technically minded and often male user. Third, the movement suffers from the problem of scale. Although Tatum estimated that its size in the early 2000s was approximately 250,000 households, the idea of spending a weekend installing a home power system is beyond the competency and affordability of most homeowners.

Although localism as a regional development strategy faces limitations, it is nevertheless possible to configure localist institutions in ways that can address the problem of overconsumption and sustainability. This paper will focus on the overconsumption of fossil fuels, which I assume to be a significant global economic problem due to its impact on global

climate, regional air quality, and ecosystems located near extraction and processing facilities. Focusing on the best practices of three types of localist energy institutions—public power agencies, community choice aggregation programs, and energy conservation utilities—I will argue that the models demonstrate how communities in the U.S. can leverage limited resources to make significant shifts toward renewable energy and energy conservation. The emergence of such models is all the more remarkable given the lack of support for renewable energy and energy conservation at the federal government level. If the models were replicated across the United States, they could significantly alter the mix of energy consumption toward renewable energy and also enhance energy conservation. By utilizing a strategy of import substitution through publicly owned power generation, distributed renewable energy, and energy conservation, the localist models also could strengthen local economic control.

The comparative analysis that follows builds on an NSF-funded research project in which Langdon Winner and I have been investigating some of the trade-offs between "justice goals" (including local political control and economic equity) and environmental sustainability goals in green localist institutions (Hess and Winner 2006). We and our graduate research assistants have developed 30 case studies that examine the issue in community gardens and urban agriculture, the greening of urban bus fleets, renewable energy and public power agencies, the reuse sector, and local and green business associations. The sections that follow are based on interviews that I conducted in 2005 with representatives of Austin Energy, the Sacramento Municipal Utility District, Seattle City Light, San Francisco Supervisor Tom Ammiano, and local power activist Paul Fenn. In the Vermont case, I attended a workshop on the Vermont Conservation Utility presented in 2004, and I used additional sources available on the Internet.

Green Localism and Public Power

Most municipalities in the United States are served by public power, that is, either independent public agencies or departments of the municipal government. Yet, although public power agencies vastly outnumber investor-owned utilities (IOUs), the IOUs are concentrated in cities with large populations, with the result that most consumers are served by municipal utilities. As a result, most of the public power agencies are very small, and they often are little more than local distribution and transmission agencies. In a few cases, the larger public power agencies also own generating capacity, and a few of those agencies have become leaders in the transition toward greener electricity.

Austin Energy, Sacramento Municipal Utility District (SMUD), and Seattle City Light are three of the leading "green" public power agencies in the United States (Hess 2005d, 2005e, and 2005g). All have green pricing programs, but such programs are also widely available through IOUs throughout the U.S. In general, green pricing programs allow consumers to convert their electricity to wind, hydro, and other renewable sources. Because the programs usually are available for a price premium of about 1 cent per kilowatt hour, they have to date only been embraced by a small percentage of consumers, roughly 5-15% in most utilities. However, Austin Energy claims to have the most successful green pricing program in the country. Upon closer inspection, it is not difficult to see why. The utility bill has both a base charge and a fuel charge, and the latter is a pass-through charge based on actual fuel costs. Because the wind energy is based on long-term contracts, customers are able to lock-in prices for a ten-year period. The lock-in has been especially attractive to local firms that wish to reduce risk on their long-term energy prices; it effectively offers customers a long-term fuel hedge. Given the high demand, Austin Energy has been able to expand its renewable energy capacity rapidly.

At the local level, the shift to renewable energy would only entail import substitution if the public power agency were to use green pricing revenue to invest in renewable energy generation that the agency owned. SMUD has invested in ownership of generating capacity for wind and solar sites, but the large wind contracts for Austin Energy and Seattle City Light are with independent companies. In the case of a public power agency that purchases renewable wind energy, the form of localism is more akin to the locally owned retail outlet, which sells products that are largely made nonlocally, than the locally owned farm. Another type of import substitution can be found in the case of Seattle City Light, which claims to have become the country's first carbon-neutral utility. Most of the department's energy comes from hydropower and wind, but it has also funded energy conservation and carbon offset programs for the small percentage of energy coming from grid-based fossil fuel. Some of the carbon credits fund biodiesel purchases for the city's transportation fleets.

Another form of import substitution occurs through programs designed to encourage investments in energy conservation and distributed renewable energy. The three utilities all have programs aimed at low-income customers that provide assistance with weatherization, and they also have incentive programs for rooftop solar and other distributed energy investments, such as SMUD's experimental program for distributed electricity based on biomass from local farms. Perhaps the most innovative of programs is the proposal developed by Roger

Duncan of Austin Energy, but supported by other utilities and city governments across the country, to prod automakers into developing plug-in electric hybrids. Although wind energy is increasingly attractive, it suffers from an intermittency problem. Whereas SMUD and Seattle City Light have hydropower sources, where they can pump water back into reservoirs during periods of excess capacity, hydropower storage is less realistic in the dry climate of Texas. Duncan's plan is to create a two-way connection between automobile batteries and the grid, so that excess capacity can be stored in plug-in electric hybrid vehicles, and, during period of peak load, the cars could become a source of excess capacity for the grid. The plan is consistent with the proposal of David Morris (2005) of the Institute for Local Self-Reliance, who sees a localist potential in the combination of biofuels, plug-in electric hybrids, and distributed renewable energy. Furthermore, the proposal could significantly reduce fuel costs; as Duncan pointed out in the interview, the cost of running a car on electricity is the equivalent of less than under $1.00 per gallon (Hess and Winner 2006).

Although there are many innovative programs and ideas coming from the leading green public power agencies, only Seattle is close to freeing itself from fossil fuel sources. Its hydropower sources have been controversial to environmentalists, and the city department has invested significant resources in mitigating some of the negative effects of its dams. In the case of SMUD and Austin Energy, during the early 2000s both utilities invested in new natural gas plants, which was viewed as necessary in order to meet growing demand and (for Austin Energy) to replace older, less efficient sources. Although natural gas is much cleaner than either coal or oil as a source for electricity, the decision to invest in natural gas suggests that even the most environmentally oriented public utilities face difficult choices in making the transition to more sustainable energy sources. Representatives of all three utilities cited transmission congestion and transmission charges as a significant roadblock to bringing more wind resources on line more rapidly.

Community Choice

Cities that already have local ownership of their electricity generation and transmission are in an enviable position in terms of having the power to develop a locally controlled transition to greater use of renewable energy sources and to develop programs that can assist low-income consumers. However, most cities in the U.S. have IOUs, and in general the IOUs have not shown the same level of innovation that can be found in the public utility leaders such

as Austin, Sacramento, and Seattle. Although there are some cases in recent decades of city governments that have converted from IOUs to public power, in general the prospect is difficult, both because of resistance from IOUs and because city governments need significant expertise and financial resources in order to make the conversion. Furthermore, city governments that convert to public power can incur significant debt, and consequently they have an incentive to maintain or increase revenue. As a result, although some public utilities have provided exemplary leadership, conversion to public utility status can incentivize increased aggregate consumption in order to generate revenue for debt relief.

Given the difficulties of converting from private to public power, and in some cases even the pressures to privatize public utilities, a new form of local electricity governance has emerged that enhances local control within the framework of deregulated IOUs. Led by Paul Fenn, a former intellectual historian turned local power activist, several states have now passed "community choice" legislation, which empowers city governments to aggregate consumers and purchase electricity from suppliers as a unit. Individual consumers are given an opt-out option, with several opportunities to opt out before they are added to the aggregation of buyers. By aggregating consumers, city governments are in a better position to negotiate a better price. For example, the Northern Ohio Public Energy Council put up its collective consumers for bid and received a lower bid from Green Mountain Energy. In the process, the aggregation of utilties not only garnered lowered prices for consumers but achieved a 33% reduction in greenhouse gases (that is, well beyond the Kyoto protocol goals), because the new supplier also offered a much cleaner mix of energy sources. Although the sustainability benefit was a side effect and did not result directly in the closure of old, dirty coal plants, one can see that if community choice policies were to become widespread and if some cities specified a renewable component, at an aggregate level community choice would generate pressure on older, less efficient generation sources to close (see Hess 2005f).

In San Francisco the community choice model has been developed to a much higher level of environmental impact than the first contracts in Ohio and Massacusetts. In the wake of the energy crisis of 2000, San Franciscans attempted to municipalize electric power, but the IOU campaigned heavily against the ballot propositions. After the defeat of propositions that sought voter approval to bring public power to San Francisco in 2001 and 2002, Fenn helped to develop a plan for the city that would represent the next generation model of community choice by linking aggregation to the city's bond authority. The city government won a ballot measure that

gave the city's Board of Supervisors the authority to issue revenue bonds for renewable energy and conservation. In 2002 the state of California also passed legislation that allowed cities to aggregate their customers and seek competitive bids from suppliers. With both voter approval of the revenue bond authority and the state government's approval of the community choice programs, the way was open to combine community choice with a build requirement for renewable energy and conservation capital projects.

The elegance of the next generation of community choice policy is that the city government specifies in its terms of bid that the electricity provider will also be responsible for building renewable energy and conservation projects, with capital provided by the city through its bond authority. Fenn has developed a plan that, if implemented completely, will provide over 360MW of new renewable energy and conservation projects for the city. The new construction would represent about half of the city's average load and would constitute the largest public works project of this type in the world. The new capacity would be divided into a wind farm outside the city, conservation projects, and distributed energy (including about 31MW of distributed photovoltaics). It would also allow the city to close an old, fossil fuel plant in Hunter's Point, a low-income neighborhoods where environmental justice concerns around air quality have become a heated political issue.

If successful, the project will help the city to enhance local ownership and control over its energy sources, reduce both greenhouse gas emissions and overall consumption, generate new jobs through public works projects, and potentially contribute to the Bay Area's emerging status as a green technopole for renewable energy technology. In other words, it would combine some of the best features of both import substitution and export-led growth, or localism and the technopole. The project could also be replicated by other cities in California, where community choice has also generated considerable interest, and across the country, where several states have enacted community choice legislation. The strategy provides an elegant solution to the devolutionary political climate of neoliberalism, where local consumption can be leveraged into significant locally controlled public works projects.

Energy Efficiency Utilities

Energy conservation is perhaps the purest form of localism, because it substitutes non-consumption for consumption. It also directly addresses the issue of overconsumption. Although many electric utilities are required to implement energy efficiency programs, the

programs run into conflict with investor ownership, which benefits from continued energy growth. Even public power utilities can be caught in the conflict between the goals of increased energy conservation and enhanced revenue from growth in energy sales. As a result, electricity efficiency programs nationwide have achieved less than 10% of what is considered possible, and they have not been able to reduce growth in overall consumption. The energy efficiency utility has emerged as one solution to the problem of achieving greater scale in energy efficiency programs (Sacks 2004).

In recent years some state governments and municipalities have developed a new model based on the transfer of the responsibility of energy efficiency to one utility. At the state level one effect is to aggregate programs directed at energy conservation and to achieve economies of scale in energy conservation program expenditures. The idea of a conservation utility need not be limited to energy conservation; it could be applied to water conservation, automobile use reduction, and so on. In the case of energy efficiency utilities, the aggregated utility is funded by a small charge on the customer's energy bill.

Established in 2000, Efficiency Vermont is the first statewide energy efficiency utility in the U.S. The utility is operated by the Vermont Energy Investment Corporation, a nonprofit energy service organization that won a competitive bidding process for a performance contract with the state's Public Service Board. Although Efficiency Vermont is a public utility, it does not sell energy. Rather, the purpose of the utility is to provide advice, energy savings programs, and help with financing for all customers within the region. The utility explicitly views import substitution and strengthening the local economy as a key benefit of its work: "Most of every dollar spent on energy efficiency states in Vermont, while most of each dollar paying for power purchases leaves the state" (Efficiency Vermont 2006a).

Although the annual budget is small (about $15 million), Efficiency Vermont claims to have leveraged its resources to save about 58,000 MWh in energy consumption and $139 million in foregone energy expenditures counted over the lifetime of the installation. It claims that for every dollar received, the utility has generated about $1.30 in energy savings (Efficiency Vermont 2006b). As of 2004, the utility had reduced load growth by over 50% and was meeting 3% of the state's electricity needs, with a projected goal of meeting 10% of the state's needs by 2012. The utility's estimated cost of saving a kWh of electricity was estimated to be 2.9¢, or roughly half the cost of purchased electricity at the time. The utility also achieved nearly 100% participation from major lighting and appliance dealers in the state (Sacks 2004).

The utility provides assistance to a wide range of energy consumers in the state, including not only residential and small business customers but also larger businesses, ski resorts, dairy farms, government facilities, schools, and builders. Per state guidelines, the utility spends about 15% of its budget on assistance for low-income families, such as by helping them to convert from electric heat to lower cost heat, and about 40% of its budget is spent on small businesses. One of the key mechanisms of assistance is providing reviews of current electricity consumption and making recommendations on how to reduce consumption, but the organization does more than provide expertise and consulting. It also provides links to stores that sell energy efficiency products, encourages retailers to offer those products, and helps connect customers to contractors who specialize in energy efficiency installations. Although not all retailers and installers are locally owned, independent businesses, many are, and consequently the utility helps stimulate import substitution. The utility also provides coupons and incentives for purchases of energy efficient appliances and lighting, and it helps customers find financing for more substantial innovations (Efficiency Vermont 2006b).

Conclusions

Green localism brings together environmental and local sovereignty goals into a mix that can leverage the locally owned small business sector of contractors and suppliers, nonprofit and voluntary organizations, local governments, and local public agencies to provide significant shifts in energy consumption toward renewable energy and conservation at a regional level. Localist institutions exhibit the organizational flexibility to construct missions that include sustainability and justice goals, and consequently they are not as constrained by short-term earnings growth goals as the large, publicly traded corporations. I suggest that the models described above provide some grounds for hope both for environmental remediation and local sovereignty in an era of globalization. For example, the case of Seattle City Light demonstrates that it is possible for American cities to achieve (or approximate) carbon neutrality for their electricity consumption. Although one might quibble with the city department over its definition of carbon neutrality, the fact that one American city has already made such strides is suggestive of what other public utilities could achieve. Furthermore, the case of San Francisco—and potentially many other California cities that will be adopting community choice aggregation and developing the next generation model of linkage of electricity contracts with build requirements—provides a model for how individual consumers can be aggregated to reduce

electricity costs and initiate a large renewable energy public works project. Finally, the Vermont model leverages conservation and efficiency programs that have in a short period of time resulted in significant reduction in the growth of overall consumption.

Although the cases described here provide some grounds for hope, the environmental significance of green localism, in terms of the Jevons Paradox of improved efficiency alongside growth in consumption, is not yet clear. Green localist institutions can document significant gains in conversion to renewable energy sources and energy conservation, but those gains may not be significant enough to reverse overall rates of growth in environmental deposits and withdrawals, even at a regional level. One could argue that the achievement of Seattle City Light is largely due to its exceptional hydropower sources (which have their own negative environmental externalities); the next generation of community choice with a significant renewable energy public works project has not yet been implemented; and the oldest state energy efficiency utility has not yet stopped growth in energy consumption. In other words, the court is still out.

Although there is no reason to deny the shortcomings of green localism in the energy sector, one could also counterargue that in the absence of leadership at the federal government level, in the U.S. localism may be the best game in town. At the present historical moment, localism provides an untapped and potentially powerful political resource because it responds directly to the dislocations caused by globalization and the neoliberal political policies that attempt to shift social and environmental policy responsibility from the federal to the local level. A complete conversion scenario that some localist advocates embrace—where localist institutions such as credit unions, community media, public transit agencies, local agricultural networks, and public power agencies would eventually displace the publicly traded, global corporation as the primary economic unit for much of the regional economy—may not ever occur. Such a change would require that citizen-consumers were educated, united, and mobilized on the issue, even in the face of huge exposure to advertising. It is more likely that the publicly traded, large corporation will continue find a role for itself, such as it has already done for organic food production, ethanol refining, and energy generation and transmission. Consequently, we are more likely to see a continued interaction between green localism and its incorporation and transformation into mainstream industries than a replacement of the global corporation by localist institutions (Hess 2004, 2005h, in press). Through shifts to distributed renewable energy and plug-in electric vehicles (including electric and hybrid public

transportation), consumers may also have better choices that will allow them to engage in greater degrees of local control and locally oriented import substitution. However, the shifts toward localism are also likely to coincide with the use of goods and services produced globally by publicly traded corporations, such as solar panels and next-generation vehicles. Even if the strategy of import substitution is limited, the institutions of green localism can play an historically important role in spurring the mainstream industries to undertake more rapid and environmentally significant change. Green localism can become an incubator for the development of the political will needed to bring about regulatory reforms in national governments and meaningful treaties at the international level.

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