



## BRIEFLY

In an earlier policy brief we mentioned an effort to form a public utility district on Vashon-Maury Islands. Here we provide a deeper look at that effort.

Distrustful of entrenched power, our populist forebearers provided the citizens of the state with many opportunities for direct democracy. Direct democracy can have its downside, however, when issues are complex.

The case of the Vashon-Maury PUD is an interesting example of advocates using direct democracy to form a new government, which they hope to use to impose their vision for energy independence and sustainable development. While this vision has some appeal, its advocates have yet to demonstrate that the proposed PUD is financially viable.

## VASHON TO VOTE ON PUD

Sometimes a proposed public policy can appear to be so compelling that it generates its own momentum, gathering support as adherents extol its benefits. Costs and risks, if considered at all, are minimized or waved away as the disparaging concerns of pessimistic detractors.

The slow grind of the legislative process—with the hurdles of subcommittees, committees, House, Senate, and Governor—typically tempers such ardor, often to the chagrin of the impassioned advocates. Yet, ultimately, the checks and balances of the system usually work together to assure that significant legislation receives a thorough evaluation.

With initiative and referendum, however, sometimes a dedicated group of supporters can push an idea that “just seems right” and see it adopted by the voters with little scrutiny. In Seattle, for example, voters endorsed the monorail four times before fiscal reality set in. On local issues, particularly when the initial promise is cost-free, it’s tempting to overlook consequences. But, as the monorail voters discovered, when something seems too good to be true, it usually is.

Often in our state, ideas travel and ballot measures resonate far beyond the community that initially considers them. For this reason, it is instructive to examine an issue that residents of Vashon Island will be deciding this November.

### THE VASHON PROPOSITION

On November 7, registered voters on Vashon and Maury Islands will have the opportunity to vote on this proposition:

*PROPOSITION NO. \_\_\_: FORMATION OF THE PUBLIC UTILITY DISTRICT NO. 1 OF KING COUNTY, WASHINGTON (VASHON-MAURY ISLANDS).*

*The King County council adopted Ordinance 15580 concerning a proposal for the formation of a public utility district. If approved this proposition would create Public Utility District No. 1 of King County, Washington (Vashon-Maury Islands) as more fully described in Ordinance 15580. The District would have the powers described in Title 54 RCW and would initially be governed by a three member board of commissioners to be elected by qualified voters residing in the commissioner districts as described in Ordinance 15580. Should the District be formed:*

Yes

No

(King County 2006)

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The proposition is sponsored by a group called *Citizens for Vashon Public Utilities* (CVPU), which collected 751 valid signatures on a petition calling for the formation of a public utility district (PUD) on the Islands. CVPU is closely allied with the Vashon Island-based Institute for Envi-

**Box 1: PUD BASICS**

A public utility district is a municipal corporation—a local government—established for the special purpose of providing utility services. The basic laws governing PUDs are laid out in Title 54 of the Revised Code of Washington (RCW).

**Process for establishing a PUD.** The process of placing on the ballot a proposition to form a PUD can be initiated either by a county council or by petition of 10 percent of the qualified electors proposed district. The petition must describe the area to be served by the PUD and the boundaries of the districts from which the PUD’s commissioners will be elected (RCW 54.08.010; 54.12.010).

**Commission.** Districts are governed by a commission of three or five members, with five member commissions allowed only in cases where the district has more than 500,000 residents or where it has a license from the federal government to construct a dam with a cost exceeding \$250 million. The Vashon PUD would have three commissioners. Commissioner districts are to follow existing voting precinct lines and to have “approximately equal population” (RCW 54.12.010).

**Utility services.** Each PUD has authority to provide electricity, water, sewer and wholesale telecommunications services. The PUDs have broad powers to “construct, condemn and purchase, purchase, acquire, lease, add to, maintain, operate, develop, and regulate” property related to the provision of these services. These powers include the right of eminent domain (RCW 54.16.035; 54.16.20; 54.16.30; 54.16.40; 54.16.230; 54.16.330).

**Septic systems.** When authorized by a county board of health, a PUD may inspect and maintain private on-site sewage systems, including septic tanks. Any maintenance cost may be charged to the system owner (RCW 54.16.310).

**Conservation.** PUDs have limited powers to assist their customers in financing and installing materials, fixtures and equipment to conserve energy or water (RCW 54.16.032; 54.15.280)

**Property tax.** PUDs are allowed to impose a regular property tax levy of 45¢ per \$1,000 of assessed value. At this maximal rate, the average residential property in the district would have paid \$162 in tax in 2006, and the tax revenue for the district would have been a bit less than \$900,000. PUDs may levy additional property taxes to service voter-approved general obligation bonds (RCW 54.16.080; 54.24.018).

**Bonds.** The commissioners of a PUD district may issue both revenue and general obligation bonds. However, general obligation debt in excess of  $\frac{3}{4}$  of 1 percent of the assessed value of taxable property within the district must be approved by a  $\frac{3}{5}$  majority of the district’s voters. Based on 2006 property values, the maximum non-voted general obligation debt for the Vashon PUD would be \$14.9 million (RCW 54.24.018).

**When voter approval is required.** Voter approval is required to form a district, to annex territory to a district, to disband a district and to shift from the three-commissioner to the five-commissioner form of commission. In only a limited number of instances is voter approval required for PUD commission’s operational decisions: If, within 10 years of its creation, a PUD does not construct or acquire electric facilities, commissioners must gain voter approval to subsequently initiate electric service (RCW 54.08.070); PUD commissioners must gain voter approval to issue general obligation bonds in excess of  $\frac{3}{4}$  of 1 percent of the assessed value of taxable property within the district (RCW 54.24.018); commissioners must gain voter approval before providing sewage services (RCW 54.16.230); and commissioners must gain voter approval before selling the PUD’s “works, plants, systems, utilities, or properties” (RCW 58.16.180).



ronmental Research and Education (IERE). The Seattle Times has identified IERE's Executive Director, Rita Schenck, as "the architect of the plan" (Ervin 2006). Dr Schenck is CVPU's "Legal Chair," and is slated to serve on the committee writing the "pro PUD" statement for the voter's pamphlet and is a candidate for one of the PUD's three commissioner positions .

A 2005 IERE report, titled "Pacific Northwest Energy Independent Communities: A 10-Year Plan," laid out a vision of Vashon-Maury Islands self-sufficient in energy and independent of fossil fuels. The islands would provide "a model of community energy independence and bottom-up economic development' that could be embraced by other communities across the nation (IERE 2005, pp.6-7). The PUD Vashon-Maury Island voters are being asked to approve is intended to pursue this vision.

PUDs are special purpose local governments, authorized under Washington state law to provide electricity, water, sewer and wholesale telecommunications services. They are empowered to levy a property tax and to issue both revenue and general obligation bonds. The box on page 2 provides more detail on the powers of PUDs.

The CVPU web site describes the workings of the proposed Vashon-Maury PUD in this way:

The PUD being proposed will provide energy conservation services and will generate renewable energy on the island. The goal is that the island over time will make all its energy from local renewable resources. . . .

[Puget Sound Energy] will continue to provide electricity and natural gas to the island (FAQs at [www.vashonpud.org](http://www.vashonpud.org)).

There is no PUD in Washington state whose primary activity is conservation, and nothing in the proposition before the voters prevents the PUD from condemning Puget Sound Energy's property and taking over the distribution of electricity on the islands.

A three-member commission will govern the PUD, and voters will also be electing the initial three commissioners on November 7<sup>th</sup>. Commission districts are supposed to have "approximately equal populations." The commissioner districts specified for the Vashon-Maury PUD, however, appear to be far from equal. See the box on page 4.

**A SKETCHY BUSINESS MODEL**

The vision that proponents present to voters is of a PUD whose core activity is a conservation services business. The profits from this business would cover all of the PUD's administrative overhead and provide a surplus that would be invested in facilities to generate electricity from renewable resources. They say the PUD would levy no property tax.

The conservation services business would perform energy audits of homes and businesses on the islands. The audits would identify a package of cost-effective upgrades for each property and estimate the energy cost savings to the property owner from the package. If the property owner agrees to proceed, the PUD would then finance the upgrades (raising these funds by selling tax-exempt bonds) and oversee their installation by a private contractor. The property owner would repay their loans through a monthly



“conservation fee, which will be set so that it is less than the cost savings estimated from the upgrades.

**Box 2: PROBLEMS WITH THE COMMISSIONER DISTRICTS**

The petitions circulated by CVPU for the formation of a PUD were defective, in that they failed to specify commissioner district boundaries as required by RCW 54.12.010. The County Council could have refused to place the proposition on the November ballot. However, the Council decided “in recognition of the demonstrated interest in the creation of a public utility district by a sufficient number of registered voters on Vashon–Maury Islands” to exercise the Council’s own prerogative to put such a proposition on the ballot (Cope 2006).

The Council requested that CVPU suggest commissioner districts. They did so, and these districts are now part of the proposition facing voters. These districts, however, seem to violate the requirement that population be nearly equal across districts.

District No. 1 comprises 10 precincts (Baker, Biloxi, Carpenter, Chautauqua, Colvos, Cove, Dolphin, Dilworth, Lisabeula, and Vashon; District No. 2, 6 precincts (Burton, Cross, Sealth, Shawnee, Quartermaster, and Tahlequah); District No. 3 comprises only 3 precincts. At the time of the 2004 general election, District No. 1 had 4,007 voters; District No. 2 had 2,427 voters; and District No. 3 had 1,501 voters. This suggests a quite unequal distribution of population among the districts.

Confirmation comes from the US Census, which divides Vashon and Maury Islands into two census tracts. The northern tract (277.01), almost perfectly coterminous with District No.1, had a population of 5,161 in 2000. The Southern tract (277.02), coterminous with Districts No. 2 and No. 3 combined, had a population of 4,962 in 2000.

For 2004 registered voters see:  
<http://www.metrokc.gov/elections/canvass/2004/index.htm>

For maps of voter precincts see:  
<http://www.metrokc.gov/elections/gis/maps/leg/leg34.pdf>

For maps of census tracts see:  
[http://www.psrc.org/data/geo/00oct\\_skng.pdf](http://www.psrc.org/data/geo/00oct_skng.pdf)

For 2000 populations see:  
<http://www.psrc.org/data/census/sf1/sf1housing.pdf>

The proponents of the Vashon/Maury PUD have not outlined in a very rigorous way how they would make this business work. There is as yet no detailed business plan for the district, and proponents have said that such a plan can not be produced until after the election as it “would depend on the decisions of the elected commissioners” (CVPU 2006a).

The closest they have come is the IERE report mentioned earlier, which presents the strategies for both conservation and renewable energy production that the PUD would pursue. The report, however, only scratches the surface of the question of how to operate the new agency.

CVPU did recently post a six-page document titled “Vashon PUD Preliminary Business Plan.” This document provides little information beyond the IERE study as to how the PUD would operate. It does include spreadsheets depicting the PUD’s financial flows under “conservative” and “aggressive” scenarios, but the bases of these projections are not well explained at all (CVPU 2006b).

No other public utility district in this state operates a conservation services business of this type. While a number of districts do help their customers finance conservation (through either rebates or subsidized loans), in every

case this activity is ancillary to the district’s core business of providing electric service. These districts do not make money directly from their conservation activities. The districts’ gains come from either reducing their purchases or increasing their sales on the wholesale market, where electricity prices are higher than the prices they charge their customers. See for example Chelan PUD’s description of its Resource\$mart program, reproduced in Box 3 on page 5.

**IS THE PUD FINANCIALLY VIABLE?**

The new PUD will need to pay start-up and overhead costs. The IERE report suggests a staff of four people, while the preliminary business plan indicates that the initial staff level would be smaller: “we would start with 1 or 2, part time if necessary.” But even with a two-person part time staff, the preliminary business plan’s “conservative” scenario projects \$145,000 in overhead for the first year. Proponents have stated that property taxes



will not be used to pay these expenses. The PUD might try to borrow the funds, but most creditors will insist on a predictable revenue source to repay the loans, and the only such source that the PUD would have initially is its ability to levy a property tax.

Once the PUD gets up and running, the district may find it difficult to convince homeowners to sign up for their services. The PUD’s financial model assumes that it will be able to capture most of the value of energy savings in the conservation fee it charges. The first difficulty will be convincing home owners that its estimates of energy savings (on which the fees will be based) are credible.

If the energy savings estimates are accepted as credible, the PUD then faces the difficulty of convincing the homeowners to use the PUD’s conservation services—and pay the conservation fees—rather than hiring contractors or purchasing appliances themselves.

For a household acting in its best economic interests, the cost of the PUD’s conservation program and fees should be no higher than the cost of using other services. Thus, the PUD cannot exact too much in the way of fees or only the most altruistic homeowners will participate.

The PUD, as a municipal corporation, potentially can borrow at tax-free interest rates and could use its debt to help homeowners finance their home improvements. The PUD might use access to tax-exempt funding as an inducement to sign up for its conservation program, but for many homeowners the advantage to obtaining financing through the PUD will be small. For planning purposes, proponents

assume that the PUD will be able to borrow at 5 percent. Once the district’s profit is included customers will pay a higher rate on their conservation loans. (Snohomish PUD, in contrast charges only 2.9 percent for conservation loans.) But as we note below, the PUD’s ability to use tax-free bonds may be limited by IRS regulations.

Energy conservation is not exactly a new idea, and yet the kinds of activities proposed for the PUD have not spawned a large industry on their own. Within the vast, diverse and entrepreneurial world of the home improvement industry, energy conservation has not grown into a noticeable niche (far more people can analyze your home entertainment needs than your energy needs!). This suggests that the cost-benefit ratio for the homeowner is just not big enough to justify anything more than incremental actions.

**Box 3: CHELAN PUD’S RESOURCE\$MART PROGRAM**

Chelan PUD’s website provides this description of the Resource\$mart program:

**Helping business save money through energy efficiency**

Chelan County PUD’s Resource\$mart program helps industrial and commercial customers install energy-efficiency improvements to save money and electricity. The PUD pays for a portion of the up-front cost to replace, retrofit or install new equipment. Examples include:

- Fast-acting doors for fruit warehouses
- More efficient industrial refrigeration fans
- Heating and cooling system improvements
- Better lighting

Chelan County PUD’s Resource\$mart program can provide up to 75 percent of the cost of each energy efficiency project. With Resource\$mart

- Customers save money on energy
- Customers modernize their facilities
- Our hydroelectric resource is conserved

Resource\$mart is made possible because Chelan County PUD can resell energy not used locally on the wholesale market. Funds generated by the sales are then used to keep prices down for all our customers. Businesses that have taken advantage of Resource\$mart are reaping total energy savings of over 3 average megawatts per year -- enough to power 1,300 homes!

[http://www.chelanpud.org/resource-\\$mart.html](http://www.chelanpud.org/resource-$mart.html)



Whereas the PUD anticipates selling services for a complete overhaul of a home, homeowners will more likely approach energy efficiency piece-by-piece on their own, replacing appliances and fixtures when they break, replacing windows and insulation during a remodel and squirting some caulking when they feel a draft.

The PUD aims to promote a dramatic reduction in use of energy on Vashon and Maury Islands. The IERE report targets a two-thirds reduction in energy use, accompanied by a shift away from combustion energy (natural gas, oil, propane, wood) and toward electricity. The report notes that the IERE conservation goals are twice as ambitious as goals set by the Northwest Environmental Efficiency Council, a group supported by energy conservation professionals.

Achieving the two-thirds target would mean having nearly all households saving huge amounts of energy.

The IERE report provides two case studies to illustrate the energy savings potential on the islands. But these two examples do not provide very good guidance. The first example describes the conversion of a barn into office space. Given that the barn had no insulation and was poorly sealed, high energy savings would be expected. But installing the insulation required substantial rebuilding of the barn. For the second example, Vashon Co-housing, the report makes the assumption that the homes are not well insulated, and therefore could achieve 50 percent savings through better insulation and sealing. But most of these homes were built in the 1990s, when the state energy code required substantial insulation and sealing. Savings per home are simply unknown (IERE 2005, pp. 18–30).

The IERE report claims that the average R-value of homes on the islands is eight, and if that were doubled to 16, energy used for heating would be cut in half. Averages are not very useful, however. Thirty-seven percent of homes on Vashon and Maury Island were built after 1980 under strict energy codes and would yield scant energy savings. It would not be worth the trouble to eke out a small amount of energy efficiency from newer houses. At the other end of the spectrum, many deteriorated older homes and manufactured homes would more likely be targets for complete renovation or teardown rather than conservation upgrades.

There is no question that many homes on Vashon and Maury Islands would benefit from insulation and that all homes would benefit from fluorescent lighting and efficient appliances. But to expect all homes to achieve huge energy savings is unrealistic. The IERE is not daunted however, and does understand the challenge. The report notes that:

It will only be possible to achieve these conservation goals if a long-term, comprehensive and professional approach is taken. Voluntary individual action will be inadequate to achieve these levels of conservation.

By stressing the inadequacy of “voluntary individual” action, the report does raise the question of what sort of “coercive collective” action would be necessary. After all, a “comprehensive, professional approach” still cannot compel a homeowner to undertake an energy efficiency program. As noted above, PUD promoters do not have any credible evidence that Island residents want to have their homes torn up, their appliances re-

**Box 4: PUDs AND ENERGY CONSERVATION**

RCW 35.92.355

Energy conservation — Legislative findings.

The conservation of energy in all forms and by every possible means is found and declared to be a public purpose of highest priority. The legislature further finds and declares that all municipal corporations, quasi municipal corporations, and other political subdivisions of the state which are engaged in the generation, sale, or distribution of energy should be granted the authority to develop and carry out programs which will conserve resources, reduce waste, and encourage more efficient use of energy by consumers.

In order to establish the most effective statewide program for energy conservation, the legislature hereby encourages any company, corporation, or association engaged in selling or furnishing utility services to assist their customers in the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy. The use of appropriate tree plantings for energy conservation is encouraged as part of these programs.

[1993 c 204 § 5; 1979 ex.s. c 239 § 1.]

RCW 54.16.280

Energy conservation plan — Financing authorized for energy conservation projects in structures or equipment — Limitations.

Any district is hereby authorized, within limits established by the Constitution of the state of Washington, to assist the owners of structures or equipment in financing the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy in such structures or equipment pursuant to an energy conservation plan adopted by the district if the cost per unit of energy saved or produced by the use of such materials and equipment is less than the cost per unit of energy produced by the next least costly new energy resource which the district could acquire to meet future demand. Any financing authorized under this chapter shall only be used for conservation purposes in existing structures, and such financing shall not be used for any purpose which results in a conversion from one energy source to another. For the purposes of this section, "conservation purposes in existing structures" may include projects to allow a district's customers to generate all or a portion of their own electricity through the on-site installation of a distributed electricity generation system that uses as its fuel solar, wind, geothermal, or hydropower, or other renewable resource that is available on-site and not from a commercial source. Such projects shall not be considered "a conversion from one energy source to another" which is limited to the change or substitution of one commercial energy supplier for another commercial energy supplier. Except where otherwise authorized, such assistance shall be limited to:

- (1) Providing an inspection of the structure or equipment, either directly or through one or more inspectors under contract, to determine and inform the owner of the estimated cost of purchasing and installing conservation materials and equipment for which financial assistance will be approved and the estimated life cycle savings in energy costs that are likely to result from the installation of such materials or equipment;
- (2) Providing a list of businesses who sell and install such materials and equipment within or in close proximity to the service area of the district, each of which businesses shall have requested to be included and shall have the ability to provide the products in a workmanlike manner and to utilize such materials in accordance with the prevailing national standards.
- (3) Arranging to have approved conservation materials and equipment installed by a private contractor whose bid is acceptable to the owner of the residential structure and verifying such installation; and
- (4) Arranging or providing financing for the purchase and installation of approved conservation materials and equipment. Such materials and equipment shall be purchased from a private business and shall be installed by a private business or the owner.
- (5) Pay back shall be in the form of incremental additions to the utility bill, billed either together with use charge or separately. Loans shall not exceed one hundred twenty months in length.

[2002 c 276 § 3; 1989 c 268 § 2; 1979 ex.s. c 239 § 3.]



placed, and their gas furnaces and wood stoves taken away—all at a fat profit for the PUD.

**PRIVATE ACTIVITY AND ARBITRAGE LIMITATIONS ON TAX-EXEMPT BONDS**

IRS regulations may limit the ability of the Vashon-Maury PUD to use tax-exempt bonds.

First, because the utility will use bond proceeds to make loans to individuals, they may be deemed to be private activity bonds. In general private activity bonds are not tax exempt. Exceptions are made when the loans are for certain “qualified” purposes; federal law, however, imposes state-by-state limits on the aggregate value of “qualified private activity bonds” that can be issued. Thus the PUD may need to fight with other agencies for a piece of the limited “bond cap” allocated by Department of Community, Trade and Economic Development’s Bond Cap Allocation Program (IRS Publication 4078).

Second, the IRS has “arbitrage” rules that limit the return that an issuer of tax exempt securities can earn on investment of the proceeds. The Vashon-Maury PUD would be allowed to earn no more than a one and one-half percentage points more on their conservation loans than it paid on the bonds. This limit may compromise the ability of the PUD to cover all of its expenses from the fees it gets from the conservation program (IRS Publication 4078, Chasin and Kawecki).

**DOES STATE LAW ALLOW THE PUD TO DO ALL THAT PROPONENTS WANT IT TO DO?**

A bill authorizing municipal electric utilities and public utility districts to finance energy conservation was passed and signed in 1979. Legislative intent and findings are codified in RCW 35.92.355; provisions relating to municipal utilities, in RCW 35.92.360; provisions relating to PUDs, in RCW 54.16.280.

RCW 35.92.355 and RCW 54.16.280 are reproduced in the box on page 7. Interpretation of statute is always tricky, and talented lawyers can find amazing meanings in simple words, but the language of these two sections does raise interesting issues with respect to the Vashon-Maury PUD.

First note the provision in RCW 54.16.280 that prohibits financing conversions “from one energy source to another.” The IERE plan calls for using electric heat pumps to heat all houses on Vashon-Maury Islands. However, fewer than half of the islands’ houses are currently heated by electricity; the remaining houses are heated by natural gas, fuel oil, propane or wood (Princeton Energy Resources International). The PUD is prohibited from financing the installation of heat pumps on these latter houses.

Next note the requirement that “the cost per unit of energy saved . . . is less than the cost per unit of energy produced by the next least costly new energy resource which the district could acquire to meet future demand.” This requirement makes sense in the context where the district is supplying electricity to a customer and that the conservation funded reduces that customer’s demand for electricity. In that case conservation is a direct substitute for a new source of electricity, and it makes sense to compare the cost of conservation with the district’s costs of new resources. But what about a case where the customer heats his home with natural gas and the conservation investment at issue is weatherization of the house? In this case, the conservation investment does not substitute for the acquisition of new energy sources by the PUD. Can the PUD finance these investments? The eight PUDs that have weatherization-loan pro-





grams (Chelan, Clallam, Clark, Grant, Grays Harbor, Okanogan, Pend Oreille and Snohomish) all limit loans to homes that are electrically heated.

Finally note that the first paragraph of the legislative findings explicitly grants authority to finance conservation to public entities “which are engaged in the generation, sale, or distribution of energy.” Does that mean that the “Any district” that begins 54.16.280 should be read to mean “Any district which is engaged in the generation, sale, or distribution of energy”? If so, the Vashon-Maury PUD would be precluded from offering conservation services.

**RENEWABLE ENERGY: UNDERSTATING THE CHALLENGES**

The second goal of the PUD’s plan for energy independence would be to generate enough electricity on Vashon and Maury Islands to provide all the energy island residents would need after they have made their investments in conservation. Again, the primary guide to what the PUD might do is contained in the IERE report. After analyzing the various potential sources of renewable energy, the report settles on a formula with 77 percent of power from wind, 13 percent from biomass and 10 percent from solar photovoltaic (PV) panels. The report acknowledges that wind and solar power are intermittent, and suggests use of a vanadium battery system to store electricity.

Wind is a proven technology for supplementing more conventional power sources in an integrated and diversified generating network. It has rarely been used as the major source of power for the simple reason that the wind does not blow constantly. And in the case of Southeast Maury Island, the wind does not blow nearly enough to justify a major investment in wind power. The U.S. Department of Energy (DOE) rates wind potential on a scale of 1 to 7 and gives the area southeast of Maury Island a 2 (see the map linked in Box 5). Research by IERE confirms this rating (IERE 2005, pp. 39–42). DOE describes areas with rating 2 to be “marginal.”

As noted above, the unreliability of wind must be compensated for in the larger power system. There is a lively debate as to how much wind power a grid can absorb before the “shaping” and “peaking” costs become prohibitive, but few believe this figure could exceed 20 percent. Initiative 937, an ambitious program for renewable energy in Washington, targets a 15 percent penetration for wind. Seventy-seven percent is simply unheard of.

The financial challenge for wind power comes from the slow wind speeds in the area. Wind energy is an exponential function of wind speed, so a even a small drop in wind speed imposes a large penalty on energy production. Given wind speeds in the area, wind generators on Maury Island would be highly inefficient, and therefore the cost of the power they generate would be quite high.

But even that power would be cheaper than solar power from photovoltaic (PV) cells. The IERE even admits that solar power is still very expensive. The report projects that PV power will still be over 30 cents per KWH by 2015. (Inexplicably, PV is the only renewable technology mentioned in the preliminary business plan.)

The Vashon/Maury plan for renewables might conceivably be doable, but at such a high price and with such risk to reliability that it does not seem worth the effort. The same wind generators anticipated for Maury Island

**BOX 5: WIND RESOURCE MAPS**

A wind resources map for Washington state prepared by the U. S. Department of Energy’s Wind and Hydropower Technologies Program is available at:

[http://www.eere.energy.gov/windandhydro/windpoweringamerica/wind\\_maps.asp](http://www.eere.energy.gov/windandhydro/windpoweringamerica/wind_maps.asp)

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could be installed in a more promising location and provide far more environmental benefit for the state than they would standing idle in the doldrums of Puget Sound.

### **MANAGEMENT OF SEPTIC SYSTEMS**

The Washington Public Utility Districts Association newsletter reports that “PUD supporters also want to develop a group management concept for the island’s individual septic systems” (Washington Public Utility Districts Association. 2006). This would fall under the powers granted by RCW 54.16.310 and would not require further authorization by the islands’ voters. Neither the preliminary business plan nor the CVPU website provide any information on this activity.

### **COMMENTS**

For better or worse, electric power is a Northwest regional resource and it makes no sense to pursue energy strategies on the small scale anticipated by the Vashon/Maury PUD. Utilities are embracing conservation and renewable energy to the benefit of customers throughout the Northwest. The most recent plan from the Northwest Power and Conservation Council projects that in the next ten years the vast majority of new power will come from conservation and wind. But unlike the speculative and low-efficiency measures planned by supporters of the Vashon/Maury PUD, measures undertaken by major utilities in the Northwest will be cost-effective and technologically sound.

Energy independence, increased reliance on renewable fuels, smart consumption and conservation have enormous appeal in the Pacific Northwest, perhaps even more on an island like Vashon. And, clearly, the symbolism of the island as an energy oasis in the Puget Sound inspires adherents, just as the image of a futuristic monorail soaring above Seattle streets sustained supporters until dire financial straits and governance debacles brought the plan crashing to the ground.

Citizen initiatives must be subject to the same scrutiny, extended debate, and accountability of any other piece of legislation. Too often, voters buy into a shaky measure “to send a message.” This initiative is not, however, simply a message: It creates a new government, with regulatory and taxing authority. That’s not something to accept lightly. And not without demanding the accountability, financial plan, and long-term outlook supporters have yet to provide.



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