

Ordinance No. 120623

Council Bill No. 113944

The City of Seattle  
Council Bill/Ordinance

An Ordinance relating to the City Light Department; establishing a Voluntary Green Power Program, and amending Seattle Municipal Code chapter 21.49

CF No. \_\_\_\_\_

Date Introduced: <u>10/29/01</u>		
Date 1st Referred: <u>10/29/01</u>	To: (committee) <u>Energy and Environmental Policy</u>	
Date Re - Referred:	To: (committee)	
Date Re - Referred:	To: (committee)	
Date of Final Passage: <u>11-13-01</u>	Full Council Vote: <u>8-1 paper</u>	
Date Presented to Mayor: <u>11-14-01</u>	Date Approved: <u>11-14-01</u>	
Date Returned to City Clerk: <u>11-16-01</u>	Date Published: <u>4 pgs</u>	T.O. <input type="checkbox"/> P.T. <input checked="" type="checkbox"/>
Date Voted by Mayor:	Date Veto Published:	
Date Passed Over Veto:	Veto Sustained:	

11-13-01 Passed  
(No)

This file is complete and ready

**LAW DEPARTMENT**

Law Dept. Review

WILLS

# The City of Seattle - Legislative Department

Council Bill/Ordinance sponsored by: \_\_\_\_\_

Councilmember

## Committee Action:

(E)

PASSED AS AMENDED 2-0 HW, RC

W-13-01 Passed As Amended (E)

(No: Pagelet)

This file is complete and ready for presentation to Full Council. Committee: \_\_\_\_\_

(initial/date)

### DEPARTMENT

Law Dept. Review

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City Clerk  
Review

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ORDINANCE 120623

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3  
4 AN ORDINANCE relating to the City Light Department; establishing a Voluntary Green  
5 Power Program, and amending Seattle Municipal Code chapter 21.49.  
6

7 WHEREAS, RCW Chapter 19.29A requires that, electric utilities offer retail electricity  
8 customers a voluntary option to purchase qualified alternative energy resources  
9 beginning January 1, 2002; and  
10

11 WHEREAS, revenues from a new Voluntary Green Power Program will be used to increase  
12 City Light's commitment to renewable resources and to provide additional  
13 environmental benefits for customers, give City Light valuable operating experience  
14 with types of generating resources that are absent or nearly so from its current power  
15 portfolio, build public awareness of and support for these resources, provide  
16 opportunities for new partnerships and leveraged funding, and contribute toward  
17 transforming the marketplace for such resources so that they are more readily  
18 available at lower costs; and  
19

20 WHEREAS, there is significant customer support for acquiring new renewable energy  
21 resources generally and particularly those that can be locally sited; Now Therefore,  
22

23 **BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:**  
24

25 Section 1. Seattle Municipal Code, Chapter 21.49 is amended to add a new section, SMC  
26 21.49.083, to read as follows:  
27

28 **21.49.083 Voluntary Green Power Program**  
29

30 The Department shall offer a Voluntary Green Power Program in accordance with RCW  
31 Chapter 19.29A.  
32

33 A. The new Green Power Program shall be voluntary and shall be available to all General  
34 Service and Residential customers beginning January 1, 2002. Customers may  
35 voluntarily begin or terminate their participation in any of the Voluntary Green Power  
36 Program options offered to their customer class at any time on or after January 1, 2002  
37 by notifying the Department of their choice.  
38



1 B. The new Voluntary Green Power Program shall offer three voluntary fixed monthly  
2 payment options which, if chosen by any customer, will be added to that customer's bill  
3 computed with current rate schedules, as follows:

- 4 • All customers in the residential rate schedules: \$3, \$7 and \$10.
- 5 • All customers in the small general service rate schedules: \$8, \$12 and \$16
- 6 • All customers in the medium general service rate schedules: \$15, \$20 and \$30
- 7 • All customers in the large general service rate schedules: \$30, \$40 and \$50
- 8 • All customers in the high demand general service rate schedules: \$50, \$100 and \$150

9 In addition, any participating customer may send in an additional payment for the Voluntary  
10 Green Power Program. The Department will provide for such an option on customer bills or  
11 via other promotional materials.

12  
13 C. Resources acquired by City Light under the Voluntary Green Power Program will be  
14 new renewable resources including, but not limited to solar, wind, fuel cell and landfill  
15 gas and shall be in addition to renewable resources that City Light is acquiring to satisfy  
16 other policy directives or resource commitments. The Department is authorized to  
17 establish policies and procedures for implementing the Voluntary Green Power Program  
18 that are consistent with this ordinance. In selecting resources to be acquired, the  
19 Department shall consider the following factors, favoring resources which:

- 20 • Add to the region's renewable resource electric generating capacity;
- 21 • Provide opportunities to gain operating experience with types of resources which  
22 comprise less than 1% of City Light's total power resources;

- 1 • Provide opportunities to build customer awareness of and support for Green Power  
2 resources;
- 3 • Can be brought on line in a timely manner so that customer support for and interest in  
4 the Voluntary Green Power Program is maintained and enhanced;
- 5 • Provide opportunities to create partnerships or to leverage outside funding to acquire  
6 Voluntary Green Power Program resources;
- 7 • Provide opportunities to assist in effecting market transformation, that is, to help create  
8 demand for new or evolving technologies that will drive improvements in availability,  
9 reliability and reductions in cost; and
- 10 • Benefit the local economy through the use of local goods and services to implement the  
11 project.

12  
13 D. City Light shall make strong efforts to allocate the funds derived from participation in  
14 the Voluntary Green Power Program as follows:

- 15 1. Approximately sixty percent (60%) of the funds from payments under the Voluntary  
16 Green Power Program will be used to acquire new renewable resources that cost no  
17 more than twice the total cost of the wind resource included in City Light's rate base.  
18 City Light will give strong preference to local renewable resources.

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1 2. Approximately forty percent (40%) of the funds collected through the Voluntary Green  
2 Power Program <sup>will be used</sup> in local demonstration projects on public buildings to encourage new  
3 technologies and market diversification. Strong preference will be given to solar energy  
4 projects.

5  
6 Section 2. This ordinance shall take effect and be in force thirty (30) days from and after its  
7 approval by the Mayor, but if not approved and returned by the Mayor within ten  
8 (10) days after presentation, it shall take effect as provided by Municipal Code  
9 Section 1.04.020.

10  
11  
12 Passed by the City Council the 13<sup>th</sup> day of November, 2001, and signed  
13 by me in open session in authentication of its passage this 13<sup>th</sup> day of November,  
14 2001.

15 Margaret Peger  
16 President of the City Council

17 Approved by me this 14<sup>th</sup> day of November, 2001.

18 Paul Schett  
19 Paul Schett, Mayor Pro Tem

20 Filed by me this 16<sup>th</sup> day of November, 2001

21 Janith E. Lippin  
22 City Clerk

23 (SEAL)  
24  
25  
26  
27





# City of Seattle

Paul Schell, Mayor

## Seattle City Light

Gary Zarker, Superintendent

October 29, 2001

The Honorable Margaret Pageler  
City Council Energy and Environmental Policy Committee

Via: Mayor Paul Schell

Dear Councilmember Pageler:

I am forwarding to you for your consideration proposed legislation creating City Light's Voluntary Green Power Program. This program will comply with R.C.W. 19.29A signed by Washington State legislature earlier this year and respond to our customers' interest in supporting green power and a clean environment.

This new program, to be available on January 1, 2002, will allow customers to volunteer to purchase new renewable resources in addition to those included in our current resource portfolio and will strongly encourage the local development of demonstration projects and new renewable technologies.

An analysis of our options and recommendations is presented in the enclosed briefing paper.

Sincerely,

Gary Zarker  
Superintendent

NG:smb

Enclosure

cc: w/enclosure  
Councilmember Heidi Wills  
Councilmember Jim Compton  
Councilmember Richard Conlin  
Jim Echert, CBO  
Jeff Davis, CBO  
Joan Walters  
Ray Hoffman, Mayor's Office  
Nancy Glaser, SCL, Strategic Planning Director

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# Seattle's Voluntary Green Power Program Policy Issues and Options

October 26, 2001

(Jean Becker, Raquel Bennett and Nancy Glaser)

## 1. Background

As a result of a bill passed in Washington State earlier this year, in January 2002 Seattle City Light has to offer its customers a voluntary option to purchase qualified renewable or green energy. The experience of other utilities suggests customer participation rates of about 1 to 3 percent depending on the amount of advertising and general economic conditions. At a 1-percent level, City Light participants would number about 3,000 residential and 400 business customers. If each of these residential customers paid an average premium equivalent to \$5 per month and each of these business customers paid an average premium equivalent to \$30 per month, City Light would collect \$324,000 a year.

## 2. Green Power Purchase Premium Varies with the Renewable Resources

For information purposes, this section illustrates the possible sizes of green power purchase premiums assuming that they are designed to reflect the costs of a specific renewable resource and that 100% of the energy sold under the green power program is generated by such resource. The example includes wind and solar.

### *Estimate of Green Purchase Premium Based on Wind*

The difference between the 2002 cost of wind, as in the State Line contract, and the cost of City Light's melded power resources, as reflected in the power portion of the 2002 average system rate, is as follows:

Average power cost of State Line wind in 2002: \$50.60 per MWh

Power portion of City Light's 2002 average rate: \$28.84/MWh

Green Purchase Premium:  $\$ 50.60 - \$ 28.84 = \$ 21.76$  per MWh, or 2 about cents per KWh, which would allow the customer to receive 100% of its consumption as wind energy

### *Estimate of Green Purchase Premium Based on Solar*

Estimated average annual cost of solar assuming a 20-year life, installation cost of \$6,000 per KW and 12% capacity factor: \$285 per MWh

Green Purchase Premium:  $\$ 285 - \$ 28.84 = \$ 256.16$  per MWh, or about 26 cents per KWh, which would allow the customer to receive 100% of its consumption as solar energy

### *Monthly Impact of Green Purchase Premium on Customer's Monthly Payment*

The following table shows the monthly impact on the average customer's bill, assuming that the customer's energy consumption is met with 100% of either wind or solar at a green purchase premium that reflects respectively the cost of wind or the cost of solar energy. The costs of energy produced from landfill gas or geothermal sources are closer to the costs of wind than solar.

Customer Class	Monthly Average Consumption in KWh	Monthly Premium Payment with 100% Wind Energy	Monthly Premium Payment with 100% Solar Energy
Residential	720	\$14	\$187
Small General Service	2,700	\$54	\$702
Medium General Service	64,000	\$1,280	\$16,640
Large General Service	890,000	\$17,800	\$231,400

### 3. What Resources Will Be Considered - State Line Wind or Additional Resources?

This section reviews the potential choices of renewable resources to be considered under the voluntary green power program. Given an amount of revenue collected from customers, the amount of renewable energy acquired under the voluntary green power program is inversely correlated to the cost of renewable resources. For example, the \$324,000 of green power revenue estimated in the first section above, when dedicated 100% to one selected renewable resource, would allow the utility to buy a total of about 1.8 average MW of wind, or 1.5 average MW of landfill gas, or 1.2 average MW of geothermal, or 0.1 average MW of solar energy.

The following paragraphs describe City Light's renewable resource options under the green power program and include non-cost considerations under each case:

#### ➤ **State Line Wind**

##### Pros:

- This resource will be available in January 2002
- The generating capacity of the resource is already known
- Current utility resources exceed current demand; this option limits new resource acquisition
- If the utility offers State Line wind to wholesale customers, retail customers may want access as well.
- Customers could choose to buy 100% wind energy

##### Cons:

- Perception that State Line wind would be offered to all customers through base s as part of SCL's overall resource portfolio.

#### ➤ **Additional Resources**

##### Pros:

- Promote new technologies



- Diversify portfolio
- Builds new renewables

Cons:

- SCL is long on resources over the next 4 to 5 years depending on the economy.
- The acquisition may be lumpy. SCL must estimate the amount of the revenue we can expect from the green power program annually so that we can decide on how much additional green resource(s) to develop or purchase. (SCL must hold non-participating ratepayers harmless.)
- Resources are likely to be more expensive than State Line wind or the melded resource.
- It will be significantly harder to match 100% of the customer's consumption, as shown below for the average residential customer. Meeting 100% of the typical residential customer load with wind, the least costly of renewable resources, would require a monthly green purchase premium payment equivalent to about \$14.50 - an amount at the high end of what residential customers indicated in 1996 they would be willing to pay.

Resource	\$3/month		\$7/month		\$10/month	
	KWh	% of average residential use	KWh	% of average residential use	KWh	% of average residential use
Wind	150	21%	350	49%	500	69%
Landfill Gas	123	17%	287	40%	410	57%
Geothermal	96	13%	224	31%	320	44%
Solar	12	2%	28	4%	40	5%

➤ **Combination of State Line Wind and Additional Resources**

This option would combine advantages and disadvantages of the two options above.

4. Billing Options

There are basically two billing options to collect green power purchase premiums. They are described below:

➤ **Fixed Payment per Billing Period**

Pros:

- Known, fixed-dollar commitment level preferred by many customers
- Customer can choose different levels of commitment
- Easier to implement in billing system as recurring miscellaneous charge

Cons:

- Cannot match exactly with customer consumption each billing period

➤ **Additional Charge per KWh**

Pros:

- Can match customer monthly consumption (e.g., 100% renewable)



- Can be more easily associated with the cost of renewables

Cons:

- KWh charge is not at a fixed commitment level per month
- More costly and complex to implement in billing system
- Could not be implemented as early as January 1, 2002 because of its complexity since we are still stabilizing CCSS
- More difficult to offer customer choices of different levels of participation

#### 5. Executive Recommendations

- Consider **all new** renewable resources (additional to State Line) including, but not limited to solar, wind, geothermal and landfill gas
- Invest 40% of the money collected by the voluntary green power program in local demonstration projects on public buildings to encourage new technologies and market diversification. (For example, if we collected \$324,000 a year and allocated 40% to solar panels we could buy 11 solar panels of 1.9 KW each.)
- Invest 60% of the money collected by the voluntary green power program in renewable resources that cost no more than twice the cost of wind; strong preference would be given to local resource development.
- Offer three fixed monthly payment options per group of customer class, as follows: residential, small general service, medium general service, large general service and high demand general service
- Make the green power program available January 1, 2002
- Market the program during the first quarter of 2002
- Keep a record of program participation and costs.
- Review and report on mid-year status of green power program in July 2002



Seattle's Voluntary Green Power Program  
Fixed Payment Options per Month

Monthly fixed payment levels are based on SCL customer market research from 1996. SCL residential customers said they would be willing to pay from \$5 to \$15 additionally per month to support renewable resource development, with 65% of them stating they would be willing to pay \$10 per month or less and 13% saying they would pay between \$10 and \$20 per month. The amount that businesses were willing to pay varied from \$50 or less per month (28%), up to \$100 per month (5%) and up to \$500 (5%). We do not have a specific break down for businesses into small, medium and large general service, but the report suggests that the stated willingness to pay increases with the size of the business. The proposed payment levels recommended below are somewhat lower than the levels suggested by the 1996 survey because of the following reasons: a) economic growth has slowed down; b) City Light rates are now much higher, and c) experience suggests that customers at first tend to overstate the amounts they are actually willing to pay for green energy.

SCL will offer our customers the following purchase options.

All customers in the Residential rate schedules

- \$ 3 per month
- \$ 7 per month
- \$10 per month

All customers in the Small General Service rate schedules

- \$8 per month
- \$12 per month
- \$16 per month

All customers in the Medium General Service rate schedules

- \$15 per month
- \$20 per month
- \$30 per month

All customers in the Large General Service rate schedules

- \$30 per month
- \$40 per month
- \$50 per month

All customers in the High Demand General Service rate schedules

- \$50 per month
- \$100 per month
- \$150 per month

**ORDINANCE** \_\_\_\_\_

AN ORDINANCE relating to the City Light Department; establishing a Voluntary Green Power Program, and amending Seattle Municipal Code chapter 21.49.

WHEREAS, RCW Chapter 19.29A requires that, electric utilities offer retail electricity customers a voluntary option to purchase qualified alternative energy resources beginning January 1, 2002; and

WHEREAS, revenues from a new Voluntary Green Power Program will be used to increase City Light's commitment to renewable resources and to provide additional environmental benefits for customers, give City Light valuable operating experience with types of generating resources that are absent or nearly so from its current power portfolio, build public awareness of and support for these resources, provide opportunities for new partnerships and leveraged funding, and contribute toward transforming the marketplace for such resources so that they are more readily available at lower costs; and

WHEREAS, there is significant customer support for acquiring new renewable energy resources generally and particularly those that can be locally sited; Now Therefore,

**BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:**

Section 1. Seattle Municipal Code, Chapter 21.49 is amended to add a new section, SMC 21.49.083, to read as follows:

**21.49.083 Voluntary Green Power Program**

The Department shall offer a Voluntary Green Power Program in accordance with RCW Chapter 19.29A.

- A. The new Green Power Program shall be voluntary and shall be available to all General Service and Residential customers beginning January 1, 2002. Customers may voluntarily begin or terminate their participation in any of the Voluntary Green Power Program options offered to their customer class at any time on or after January 1, 2002 by notifying the Department of their choice.

1 B. The new Voluntary Green Power Program shall offer three voluntary fixed monthly  
2 payment options which, if chosen by any customer, will be added to that customer's bill  
3 computed with current rate schedules, as follows:

- 4 • All customers in the residential rate schedules: \$3, \$7 and \$10.
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- 7 • All customers in the large general service rate schedules: \$30, \$40 and \$50
- 8 • All customers in the high demand general service rate schedules: \$50, \$100 and \$150

9  
10 C. Resources acquired by City Light under the Voluntary Green Power Program will be  
11 new renewable resources including, but not limited to solar, wind, fuel cell and landfill  
12 gas.

13  
14 D. City Light shall make strong efforts to allocate the funds derived from participation in  
15 the Voluntary Green Power Program as follows:

- 16 1. Approximately sixty percent (60%) of the funds from payments under the Voluntary  
17 Green Power Program will be used to acquire new renewable resources that cost no  
18 more than twice the total cost of the wind resource included in City Light's rate base.  
19 City Light will give strong preference to local renewable resources.
- 20 2. Approximately forty percent (40%) of the funds collected through the Voluntary Green  
21 Power Program in local demonstration projects on public buildings to encourage new  
22 technologies and market diversification. Strong preference will be given to solar energy  
23 projects.

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Section 2. This ordinance shall take effect and be in force thirty (30) days from and after its approval by the Mayor, but if not approved and returned by the Mayor within ten (10) days after presentation, it shall take effect as provided by Municipal Code Section 1.04.020.

Passed by the City Council the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and signed by me in open session in authentication of its passage this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
President of the City Council

Approved by me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Paul Schell, Mayor

Filed by me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
City Clerk

(SEAL)

---

STATE OF WASHINGTON – KING COUNTY

--SS.

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138563  
City of Seattle, Clerk's Office

No. ORDINANCE IN FULL

**Affidavit of Publication**

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12<sup>th</sup> day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

The notice in the exact form annexed, was published in regular issues of The Daily Journal of Commerce, which was regularly distributed to its subscribers during the below stated period. The annexed notice, a

CT:120623 ORD IN FULL

was published on

11/27/01

J. Stedman

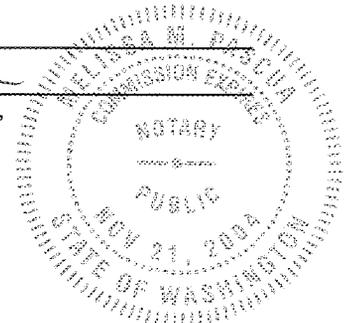
Subscribed and sworn to before me on

11/27/01

Michael M. Puse

Notary public for the State of Washington,  
residing in Seattle

Affidavit of Publication



# State of Washington, King County

## City of Seattle

### ORDINANCE 120623

AN ORDINANCE relating to the City Light Department, establishing a Voluntary Green Power Program, and amending Seattle Municipal Code chapter 21.49.

WHEREAS, RCW Chapter 19.29A requires that, electric utilities offer retail electricity customers a voluntary option to purchase qualified alternative energy resources beginning January 1, 2002, and

WHEREAS, revenues from a new Voluntary Green Power Program will be used to increase City Light's commitment to renewable resources and to provide additional environmental benefits for customers, give City Light valuable operating experience with types of generating resources that are absent or nearly so from its current power portfolio, build public awareness of and support for these resources, provide opportunities for new partnerships and leveraged funding, and contribute toward transforming the marketplace for such resources so that they are more readily available at lower costs; and

WHEREAS, there is significant customer support for acquiring new renewable energy resources generally and particularly those that can be locally sited; Now Therefore,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. Seattle Municipal Code, Chapter 21.49 is amended to add a new section, SMC 21.49.083, to read as follows:

#### 21.49.083 VOLUNTARY GREEN POWER PROGRAM

The Department shall offer a Voluntary Green Power Program in accordance with RCW Chapter 19.29A.

A. The new Green Power Program shall be voluntary and shall be available to all General Service and Residential customers beginning January 1, 2002. Customers may voluntarily begin or terminate their participation in any of the Voluntary Green Power Program options offered to their customer class at any time on or after January 1, 2002 by notifying the Department of their choice.

B. The new Voluntary Green Power Program shall offer three voluntary fixed monthly payment options which, if chosen by any customer, will be added to that customer's bill computed with current rate schedules, as follows:

- All customers in the residential rate schedules: \$3, \$7 and \$10.
- All customers in the small general service rate schedules: \$8, \$12 and \$16.
- All customers in the medium general service rate schedules: \$15, \$20 and \$30.
- All customers in the large general service rate schedules: \$30, \$40 and \$50.
- All customers in the high demand general service rate schedules: \$50, \$100 and \$150.

In addition, any participating customer may send in an additional payment for the Voluntary Green Power Program. The Department will provide for such an option on customer bills or via other promotional materials.

C. Resources acquired by City Light under the Voluntary Green Power Program will be new renewable resources including, but not limited to solar, wind, fuel cell and landfill gas and shall be addition to renewable resources that City Light is acquiring to satisfy other policy