

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
AR 538 and UM 1452**

In the Matter of PUBLIC UTILITY
COMMISSION OF OREGON

Investigation into Pilot Programs to
demonstrate the use and effectiveness of
Volumetric Incentive Rates for Solar
Photovoltaic Energy Systems.

STAFF COMMENTS

Regarding potential Federal Energy
Regulatory Commission preemption of
volumetric incentive rates set by the
PUBLIC UTILITY COMMISSION OF
OREGON

2009 Or Laws Ch. 748 (also known as House Bill 3039) requires the Public Utility Commission of Oregon (OPUC) to establish pilot programs to test whether volumetric incentive rates (VIR) paid by investor-owned utilities (IOUs) can incent the installation of solar photovoltaic (SPV) systems. In a December 15, 2009 memorandum sent to the OPUC Utility Program Director, Stephanie Andrus, a Senior Assistant Attorney General with the State of Oregon, provided legal analysis addressing how the Federal Energy Regulatory Commission's (FERC's) exclusive jurisdiction to establish rates for wholesale sales of electricity in interstate commerce impacts the ability of the OPUC to implement HB 3039.

Pursuant to Administrative Law Judge Power's December 18th ruling in this docket, Staff of the OPUC submits this letter to provide parties with Ms. Andrus's legal analysis and to explore several regulatory routes that could be taken to avoid preemption by the FERC. Ms. Andrus's memorandum is attached to this letter.

Staff draws three primary policy conclusions from Ms. Andrus's memorandum:

1. The FERC has exclusive jurisdiction to set rates for wholesale sales of electricity by public utilities in interstate commerce;
2. The electricity transactions outlined in HB 3039 and further defined in the Straw Proposal filed on December 4, 2009, are likely to be classified as wholesale sales in interstate commerce, and customers selling power to the electric companies are likely to be classified as FERC-jurisdictional public utilities; and therefore the ability of the OPUC to set VIR for these transactions is limited by FERC jurisdiction; and

3. The OPUC has considerable flexibility to re-define the electricity transactions outlined in HB 3039 and further defined in the Straw Proposal; and therefore alternative routes to implementing the VIR pilot programs are possible.

In other words, in her memorandum Ms. Andrus not only identifies a problem with the current Straw Proposal, but she also provides guidance on where to look to for possible solutions. The problem is that the OPUC has no authority to set the rates for wholesale sales of electricity, the type of transactions outlined in the Straw Proposal. Potential solutions include changing the type of transactions in the Straw Proposal, retaining the type of transactions in the Straw Proposal but allowing the rates to be set under FERC's authority, or some combination of these two routes.

Alternative Routes to Implementing HB 3039

Net Metering Transactions: According to Ms. Andrus's memorandum, the FERC has concluded that net metering transactions, where a retail customer is credited by a public utility for electric energy generated on the customer side of the meter, are not transactions subject to its jurisdiction, as long as there is no net sale over a reasonable period of time. One solution to the problem with the current Straw Proposal would be to re-define the transactions to be net-metering transactions. The OPUC would have the authority to set the rates of these transactions for Oregon's IOUs. Retail electricity consumers who installed SPV systems could be credited for generation on a monthly basis. If generation during the month exceeded the customer's electricity consumption during the month, then the excess generation (in kilowatt-hours) could roll forward to the next month. The monthly credit for any generation not rolled forward (i.e., generation that is not in excess of monthly consumption) could be set equal to the rates proposed in the current straw proposal minus the retail rate in effect at the time. Subtracting the retail rate is appropriate because the consumer gets the benefit of not having to buy the energy from the electric company. At the end of the year any remaining excess generation could either be given to charity or, if the SPV system owner had applied for and received FERC market-based rate authority, sold to the IOU at a market index rate. This net-metering approach would work best in situations where the SPV system was sized to generate at or below the annual consumption level of the retail electricity consumer. This would allow the SPV system owner to receive the full VIR for each kilowatt-hour of energy produced and to achieve the 15-year payoff assumed in the rate calculation. This approach to conforming the VIR pilot programs to the OPUC's regulatory jurisdiction would probably would work best for smaller SPV systems.

Competitive Bidding for Pilot Program Capacity: Another potential solution to the problem with the current Straw Proposal would be to require the IOUs to conduct competitive solicitations for SPV system capacity. Retail consumers interested in becoming SPV system owners would compete for a share of the IOUs assigned pilot program capacity by bidding a fixed fifteen year VIR. The winning bidders and the IOUs could then enter into a standard purchase power agreement (PPA) for the output of the SPV system. Since these PPAs would be considered wholesale sales, the SPV system owner would need to acquire market-based rate authority from the FERC. Since this approach to adapting the VIR pilot program requires the SPV system owner to put their SPV systems under the rate regulation of the FERC, this approach would probably work best for business consumers and larger SPV systems.

The best approach to adapting the current Straw Proposal and the proposed VIR Pilot Programs may be to use a combination of each of these solutions. The Staff of the OPUC looks forward to exploring these potential solutions with the parties in Docket Nos. AR 538 and UM 1452. Staff is attempting to schedule a workshop to discuss these issues for January 6, 2010.



Maury Galbraith

Electric Rates & Planning

DEPARTMENT OF JUSTICE
INTEROFFICE MEMO

DATE: December 15, 2009

TO: Lee Sparling and Maury Galbraith

FROM: Stephanie S. Andrus, Senior Assistant Attorney General
Regulated Utility & Business Section

SUBJECT: 2009 Or Laws Ch. 748

I. Introduction.

2009 Or Laws Ch. 748 requires the Public Utility Commission of Oregon (OPUC) to establish pilot programs to test the extent to which volumetric incentive rates (VIR) for power sold to investor-owned utilities (IOUs) by customers owning or operating solar photovoltaic (SPV) systems incent installation of SPV systems. In this memorandum, I analyze how federal law vesting the federal government with exclusive jurisdiction to establish rates for wholesale sales of electricity in interstate commerce impacts the OPUC's ability to establish VIR for power sold to IOUs for resale.¹

II. 2009 Or Laws Ch. 748.

2009 Or Laws Ch. 748 requires the OPUC to establish a pilot program for each of the three IOUs operating in Oregon to test the use of VIR for SPV-system-generated power to incent development of SPV systems. The legislature instructed the OPUC to cap the pilot programs at 25 mw (for all three IOUs combined), and to design the pilot programs with the goal of having 75 percent of the energy generated by "smaller" SPV systems. The legislative history of the measure indicates the legislature contemplated that smaller systems would be those installed by residential customers.²

2009 Or Laws Ch. 748 does not require the Commission to establish the VIR at any particular level. Instead, the Act authorizes the Commission to set VIR for electricity sold under the pilot programs at a rate that is higher than the "resource value" of the electricity. The resource value is defined as the investor-utility's avoided cost, including avoided fuel price volatility, minus the costs of firming and shaping, avoided distribution and transmission cost and the renewable energy certificates established under ORS 469A.130.

¹ 16 U.S.C. § 824, *et seq.* (granting FERC exclusive authority over interstate sales of electricity for resale by public utilities).

² The legislature left it to the OPUC's discretion to determine what constitutes a "smaller" system so that the OPUC would be free to determine what mix of variables, e.g., capacity of project, rate, etc., best obtained the goals of the legislation.

III. Analysis.

The United States Supreme Court has made clear that states have jurisdiction to regulate local retail rates to “ultimate customers,” but have no jurisdiction to regulate sales at wholesale by public utilities to local distributing companies.³ Under the Federal Power Act (FPA), only the Federal Energy Regulatory Commission (FERC) may set rates for wholesale power sales by public utilities in interstate commerce.⁴ The Ninth Circuit Court of Appeals has concluded that Part II of the FPA delegates to FERC “exclusive authority to regulate the . . . sale at wholesale of electric energy in interstate commerce.”⁵ The United States Supreme Court has concluded that FERC’s regulation of wholesale power rates is plenary and preempts state regulation in the area:

Congress meant to draw a bright line easily ascertained, between state and federal jurisdiction, making unnecessary case-by-case analysis. This was done in the Power Act by making FPC jurisdiction plenary and extending it to all wholesale sales in interstate commerce except those which Congress has made explicitly subject to regulation by the states.⁶

The exception to this bright-line rule is found in PURPA, which authorizes state public utilities commissions to establish an avoided cost price for utilities’ purchases from QFs, in accordance with rules established by FERC.⁷

To determine whether sales contemplated by 2009 Or Laws Ch. 748 fall within the jurisdiction of the federal government under the FPA, I analyzed the following questions:

- (1) Are sales of energy generated by customers and sold to investor-owned utilities wholesale sales under the FPA?
- (2) Are the sales contemplated by 2009 Or Laws Ch. 748 (sale of a *de minimis* amount of power to IOUs over distribution lines) in interstate commerce?
- (3) Is a retail customer that sells power to an IOU over the IOU’s distribution lines a public utility?

³ *Federal Power Commission v. Southern Cal. Edison Co.*, 376 U.S. 205, 214 (1964) (citing *Illinois Natural Gas Co. v. Central Illinois Public Service Co.*, 314 U.S. 498 (1941)).

⁴ 16 U.S.C. §§ 824-824m.

⁵ *Transmission Agency of N. Cal. v. Sierra Pac. Power Co.*, 295 F.3d 918, 928 (9th Cir. 2002), quoting *New England Power Co. v. New Hampshire*, 455 U.S. 331, 340 (1982).

⁶ *Federal Power Commission v. Southern Cal. Edison Co.*, *supra*, 376 U.S. at 216.

⁷ 16 U.S.C. § 824a-3, *et seq.*

A. Are the transactions between customers and IOUs that are contemplated by 2009 Or Laws Ch. 748 wholesale sales?

I divide this question into two parts: are the transactions “sales,” and if so, are they “wholesale sales”?

1. Are the transactions between the customers and IOUs “sales”?

It appears the legislature intended that the pilot program transactions between the customers and IOUs would be sales. A “sale” is defined as “the act of selling: a contract transferring the absolute or general ownership of property from one person or corporate body to another for a price (as a sum of money or other consideration[.]).”⁸ The legislature specified that retail customers participating in the pilot programs may receive payments from the IOUs for all of the power generated by the SPV systems owned or operated by the customers.⁹

However, it appears the legislature left the Commission sufficient flexibility to create pilot programs in which the transactions between the customers and IOUs are not sales, but net metering transactions. Net metering means measuring the difference between the electricity supplied by the electric utility and the electricity generated by a customer-generator and fed back to the electric utility over the applicable billing period.¹⁰ FERC has concluded that net metering transactions in which a customer is credited by a public utility for energy generated by the customer and transmitted to a public utility is not a sale subject to FERC’s jurisdiction, as long as the transactions do not result in a net sale over a reasonable period of time, such as a billing period.¹¹

If the pilot program transactions are net metering transactions, it is within the Commission’s jurisdiction to establish rates for the energy transmitted from the customer to the utility, to the extent the transmissions do not result in a net sale over a reasonable period, such as a month-long billing period.

If the pilot program transactions are sales, it is necessary to answer the second and third questions set forth above, as well as the second part of the first question—whether the transaction is a wholesale sale—to determine the extent of the OPUC’s authority to establish VIR for the transactions.

⁸ Webster’s Third Int’l Dictionary 2003 (unabridged ed 2002.)

⁹ 2009 Or Laws Ch. 748, sec. 2(4).

¹⁰ ORS 757.300(1)(c).

¹¹ 94 FERC 61,340 2001 WL 306484 (*MidAmerican Energy Co.*). See also 129 FERC 61,146 (Nov. 19, 2009) (*SunEdison LLC.*).

2. Are the transactions between the IOUs and customers “wholesale sales”?

A “wholesale sale” is defined in the FPA as “sale of electric energy to any person for resale.”¹² 2009 Or Laws Ch. 748 specifies that the primary purpose of a SPV system that is eligible for a pilot program is to serve the IOU’s retail customers.¹³ In other words, the legislature has specified that sales from SPV system owners or operators under pilot programs established under 2009 Or Laws Ch. 748 are sales of energy to IOUs for resale to its retail customers. Accordingly, to the extent the transactions between the customers and IOUs are sales, they are wholesale sales.

B. Are sales of *de minimis* amounts of electricity to IOUs over the IOUs’ distribution lines in interstate commerce?

The fact the wholesale sales will be on distribution lines raises two questions: (1) are the sales subject to FERC jurisdiction when the power is transmitted on facilities traditionally used for distribution and traditionally subject to state jurisdiction; and (2) are the sales in interstate commerce when the energy sold by the customers will most likely be sold to the IOUs’ customers within Oregon (as opposed to on the wholesale market)?

1. Are the sales subject to FERC’s jurisdiction when they are made over facilities traditionally subject to state jurisdiction?

The FPA specifies that the federal government has jurisdiction over wholesale sales in interstate commerce. This jurisdiction is not qualified by the type of facilities used to transmit the power that is sold. Accordingly, the fact that such sales may be made over facilities that are most often used for local retail sales does not divest FERC of its jurisdiction.¹⁴

2. Are the sales in interstate commerce if the power generated by customers and sold to IOUs is used to serve the IOU’s retail load within the state?

In *New York v. FERC*,¹⁵ the United States Supreme Court addressed challenges to FERC’s decision to assert jurisdiction over facilities traditionally used to distribute energy to end-use customers (local distribution facilities) when the facilities are used in

¹² 16 U.S.C. § 824b(2)(d).

¹³ 2009 Or Laws Ch. 748 § 1(3)(b)(A).

¹⁴ See e.g., *Transmission Access Policy Study Group v. FERC*, 225 F.3d 667, 694 (D.C. 2000), *aff’d* *New York v. FERC*, 535 U.S. 1 (2002) (“FPA § 201(a) makes clear that all aspects of wholesale sales are subject to federal regulation, regardless of the facilities used. FERC’s assertion of jurisdiction over all wholesale transmissions, regardless of the nature of the facility, is clearly within the scope of its statutory authority.”). See also *Detroit Edison Co. v. FERC*, 334 F.3d 48, 51(2003) (“[W]hen a local distribution facility is used in a wholesale transaction, FERC has jurisdiction over that transaction pursuant to its wholesale jurisdiction under FPA § 210(b)(1).”).

¹⁵ 535 U.S. 1, 7-8 (2002).

wholesale transactions. The Court implicitly rejected the argument that any energy that stayed within confines of local distribution facilities may not be in interstate commerce. The Court noted,

Technological advances have made it possible to generate electricity efficiently in different ways and in smaller plants. In addition, unlike the local power networks of the past, electricity is now delivered over three major power networks, or “grids,” in the continental United States. Two of these grids—the “Eastern Interconnect” and the “Western Interconnect”—are connected to each other. It is only in Hawaii and Alaska and on the “Texas Interconnect” – which covers most of that State – that electricity is distributed entirely within a single state. ***In the rest of the country, any electricity that enters the grid immediately becomes a part of a vast pool of energy that is constantly moving in interstate commerce.***¹⁶

The Court used arguments provided by an *amicus*, the Electrical Engineers, et al., to support its conclusion.

As *amici* explain in less technical terms, “[e]nergy flowing onto a power network or grid *energizes the entire grid*, and consumers then draw undifferentiated energy from that grid.” Brief for Electrical Engineers, et al. * * * As a result, explain *amici*, any activity on the interstate grid affects the rest of the grid. * * * *Amici* dispute the States’ contentions that electricity functions “the way water flows through a pipe or blood cells flow through a vein” and “can be controlled, directed and traced,” as these substances can be, calling such metaphors “inaccurate and highly misleading.”¹⁷

Under *New York v. FERC*, the electricity generated by a pilot program SPV system will be in interstate commerce once the electricity enters an IOU’s distribution lines for transmission away from the retail customer owning or operating the SPV system.

Finally, the fact that customers would sell only a small amount of electricity under the pilot programs also would not preclude FERC jurisdiction, if the pilot program transactions are “sales.” The United States Supreme Court has concluded the federal regulator’s jurisdiction under the FPA is not conditioned on any particular volume or proportion of interstate energy involved.¹⁸

¹⁶ 535 U.S. at 7-8 (emphasis added).

¹⁷ 535 U.S. at 8 n 5(emphasis in Court opinion).

¹⁸ *Connecticut L. & P. Co. v. FPC*, 324 U.S. 515, 535-36 (1945).

C. Is a retail customer that sells electricity to an IOU for resale a public utility?

A retail customer selling to an IOU power that is generated by a facility installed by the retail customer would be a public utility under the FPA. “Public utility” is defined for purposes of subchapters II and III of the FPA as any person who owns or operates facilities subject to the jurisdiction of the Commission.¹⁹ Jurisdictional facilities are described in Sections 201(a) and 201(b)(1) of the FPA as facilities for wholesale sales in interstate commerce or for transmission in interstate commerce.²⁰ Accordingly, whether the IOU customers that sell energy to IOUs are public utilities under the FPA turns on whether the customers will own or operate “facilities” subject to the jurisdiction of FERC.

Because the owners or operators of the SPV systems will enter into agreements with the IOUs regarding the sale of power generated by the SPV systems, the SPV system owners and operators that sell power to IOUs will be public utilities. FERC has interpreted “facilities” broadly to include wholesale sales contracts through which entities engage in wholesale power sales.²¹ Similarly, in *Hartford v. FPC*, the Court of Appeals for the Second Circuit analyzed whether a company that owned no transmission assets, but that made wholesale sales in interstate commerce was a public utility. The Court concluded that it was, noting that the entity did own “facilities”—contracts, accounts, etc. – used for the purpose of making the sales.²²

IV. FERC Orders.

FERC has addressed the legality of state statutes establishing or authorizing incentive rates for wholesale sales of energy generated by renewable resources and concluded that the statutes are preempted, unless the rates are for QFs and established in accordance with the avoided cost rules promulgated under PURPA. In 1995, FERC analyzed whether a Connecticut statute regulating the rates for the sale of power by a resources-recovery facility owned or operated by or for the benefit of a municipality to an electric utility is preempted by PURPA. FERC concluded the statute was preempted if the energy sellers were QFs or public utilities, but was not preempted if the sellers were public agencies:

[I]f the facility addressed by the Connecticut statute is a qualifying facility (QF) under PURPA, this Commission has responsibility for the QF’s rates

¹⁹ 16 U.S.C. § 824b(2)(e).

²⁰ 16 U.S.C. § 824b(1).

²¹ *Citizens Energy Corporation*, 35 FERC 61,198 (1986 WL 77603) (holding that an entity need not have capability to generate or transmit energy to be a public utility under the FPA and that an entity intending to engage in sales for resale of energy to utilities and to arrange for transmission of such energy for purposes of selling in interstate commerce is a public utility under the FPA). See also *Automated Power Exchange, Inc.*, 82 FERC 61,287 (1998 WL 131416) (noting that entity exercising control over “paper” facilities used to effectuate power sales is a public utility under the FPA).

²² *Hartford Electric Light Co. v. FPC*, 131 F.2d 953 (1942).

for sales for resale. Rates may be established by the state but only pursuant to and consistent with this Commission's regulations under PURPA. Second, if the facility addressed by the Connecticut statute is not a QF but the seller is a public utility within the meaning of the Federal Power Act (FPA), this Commission has exclusive jurisdiction over its rates for sales for resale in interstate commerce. States may not set rates for public utility sales for resale in interstate commerce. Finally, if the facility addressed by the Connecticut statute is not a QF and the seller is not a public utility, but, for example, instead is a governmental entity within the scope of section 201(f) of FPA, this Commission does not have jurisdiction over its rates.²³

Similarly, in 1997, FERC addressed whether orders of the Iowa Utilities Board (Board) implementing a statute authorizing the Board to order electric utilities to contract with "Alternate Energy Production Facilities" (APFs) to purchase energy and authorizing the Board to set economically reasonable rates for the purchases were preempted by PURPA or the FPA or both. FERC concluded that the state did have authority to order utilities to enter into power sale contracts with APFs. However, FERC concluded that the Board orders were preempted by PURPA to the extent they obligated electric utilities to purchase power generated by APFs that were also QFs under PURPA at rates exceeding the utilities' avoided costs. And, FERC concluded that the orders were inconsistent with the FPA to the extent they set rates for public utilities for sales for resale in interstate commerce.²⁴

However, as discussed above, FERC has clarified that to the extent net-metering transactions do not result in a net sale from the end-use customer to the utility, net metering transactions between a customer and utility are not wholesale sales subject to FERC jurisdiction.

V. Conclusion.

The Commission's authority to set VIR for the pilot programs mandated by 2009 Or Laws Ch. 748 is dependent on the appropriate classification of the transactions between the customers and IOUs under the pilot programs. If the pilot programs are designed so that the transactions between the SPV system owners and operators are net metering transactions, it is within the Commission's jurisdiction to establish rates for the energy transmitted to the IOU by the customer, provided the transmissions do not result in a net sale to the IOU over the course of a reasonable period.

To the extent the transactions are "sales," then the transactions are subject to FERC jurisdiction and the Commission's authority to establish VIR is limited. Specifically, for pilot program participants that are QFs, the Commission must set the VIR at the

²³ 70 FERC 61,012, 1995 WL 9931 (*Connecticut Light and Power Company*).

²⁴ 78 FERC 61,067, 1997 WL 34082 (*Midwest Power Systems, Inc.*).

purchasing utility's avoided cost. For pilot program participants that are not QF's, the Commission may not establish VIR, but must design pilot programs that either incorporate a wholesale market rate as the VIR, or that use a rate determined by the IOUs and customers. If the latter, Commission could:

- (1) Require the IOUs to enter into power purchase agreements with pilot program participants. The contracting parties would voluntarily agree to a rate for power sold under the contract; or
- (2) Require IOUs to issue Requests for Proposals to pilot program participants for supply of energy.

CERTIFICATE OF SERVICE

AR 538 AND UM 1452

I certify that I have this day served the foregoing document upon all parties of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid, or by electronic mail pursuant to OAR 860-13-0070, to the following parties or attorneys of parties.

Dated at Salem, Oregon, this 21st day of December, 2009.



Kay Barnes
Public Utility Commission
Regulatory Operations
550 Capitol St NE Ste 215
Salem, Oregon 97301-2551
Telephone: (503) 378-5763

AR 538 Service List

ROBERT FRISBEE

rfrisbee@si-two.com

JOLENE GOODNIGHT

jolene.goodnight@gmail.com

RUSSELL HIRSCH

russell@dhgllc.com

RAINER HUMMEL

5041 SW ILLINOIS ST
PORTLAND OR 97221
rhummel@q.com

DAVID JOHNSON

sideoff.dave@gmail.com

TEDDY KEIZER

1615 SE 30TH AVE
PORTLAND OR 97214
teddy@gotteddygo.com; teddy1a@aol.com

SEAN MICKEN

sean@resolveenergy.net

RAYMOND P NEFF

465-1/2 RIVER RD
EUGENE OR 97404
rpneff@efn.org

CLIFF TAYLOR

gentaylor@comcast.net

JOHN VARELDZIS

25 NW 23RD PL STE 6#397
PORTLAND OR 97210
john.vareldzis@gmail.com

DANIEL WELDON

19790 SOUTH FERGUSON TERRACE
OREGON CITY OR 97045
danweldon@bctonline.com

***OREGON DEPARTMENT OF ENERGY**

ROBERT DEL MAR
ENERGY ANALYST

625 MARION ST NE
SALEM OR 97301-3737
robert.delmar@state.or.us

KIP PHEIL
SENIOR POLICY ANALYST

625 MARION ST NE - STE 1
SALEM OR 97301-3737
kip.pheil@state.or.us

VIJAY A SATYAL
SENIOR POLICY ANALYST

625 MARION ST NE
SALEM OR 97301
vijay.a.satyal@state.or.us

ABUNDANT SOLAR

JAMES REISMILLER

james@abundantsolar.com

ADVANCED ENERGY SYSTEMS

ERIC NILL

65 CENTENNIAL LOOP
EUGENE OR 97401
eric@aesrenew.com

AF LEGAL & CONSULTING SERVICES

ANN L FISHER
ATTORNEY AT LAW

PO BOX 25302
PORTLAND OR 97298-0302
energylaw@aol.com

ALBINA COMMUNITY BANK

SCOTT BOSSOM
CREDIT ADMINISTRATOR

sbossom@albinabank.com

BACGEN SOLAR GROUP

MARTIN SHAIN

ONE WORLD TRADE CENTER
121 SW SALMON ST, 11TH FLR
PORTLAND OR 97204
martin@bacgensolar.com

BEF RENEWABLE INC

ALICE BRAY

240 SW FIRST AVE
PORTLAND OR 97204
abray@b-e-f.org

CITIZENS' UTILITY BOARD OF OREGON

JEFF BISSONNETTE

610 SW BROADWAY STE 308
PORTLAND OR 97205-3404
jeff@oregoncub.org

GORDON FEIGNER
ENERGY ANALYST

610 SW BROADWAY, SUITE 308
PORTLAND OR 97205
gordon@oregoncub.org

ROBERT JENKS

610 SW BROADWAY STE 308
PORTLAND OR 97205
bob@oregoncub.org

G. CATRIONA MCCracken
LEGAL COUNSEL/STAFF ATTY

610 SW BROADWAY - STE 308
PORTLAND OR 97205
catriona@oregoncub.org

CITY OF PORTLAND - PLANNING & SUSTAINABILITY

LEE RAHR

721 NW 9TH AVE STE 350
PORTLAND OR 97209
leerahr@ci.portland.or.us

DAVID TOOZE
SENIOR ENERGY SPECIALIST

1900 SW 4TH STE 7100
PORTLAND OR 97201
dtooze@ci.portland.or.us

COLUMBIA ENERGY PARTNERS LLC

PETER P BLOOD
VP-ORIGINATION & PORTFOLIO MGMT

317 COLUMBIA ST
VANCOUVER WA 98660
pblood@columbiaenergypartners.com

COMMERCIAL SOLAR VENTURES

SANDRA WALDEN
REAL ENERGY SOLUTIONS

621 SW ALDER ST #300
PORTLAND OR 97205
swalden@realcomassoc.com

DAVISON VAN CLEVE

JESSE E COWELL

333 SW TAYLOR ST., SUITE 400
PORTLAND OR 97204
jec@dvclaw.com

DEPARTMENT OF JUSTICE

STEPHANIE S ANDRUS
ASSISTANT ATTORNEY GENERAL

REGULATED UTILITY & BUSINESS SECTION
1162 COURT ST NE
SALEM OR 97301-4096
stephanie.andrus@state.or.us

PAUL GRAHAM
ASSISTANT ATTORNEY GENERAL

REGULATED UTILITY & BUSINESS SECTION
1162 COURT ST NE
SALEM OR 97301-4096
paul.graham@state.or.us

ECUMENICAL MINISTRIES OF OREGON

KATHLEEN NEWMAN
OREGON INTERFAITH POWER & LIGHT

1553 NE GREENSWORD DR
HILLSBORO OR 97214
knewman@emoregon.org; k.a.newman@verizon.net

ENERGY TRUST OF OREGON

DOUG BOLEYN
COMMERCIAL SOLAR PROGRAM MANAGER

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
doug.boleyn@energytrust.org

KACIA BROCKMAN

851 SW SIXTH AVE - STE 1200
PORTLAND OR 97204
kacia@energytrust.org

JED JORGENSEN
RENEWABLE ENERGY PROJECT MANAGER

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
jed.jorgensen@energytrust.org

BETSY KAUFFMAN
SENIOR PROGRAM MANAGER

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
betsy.kauffman@energytrust.org

DAVE MCCLELLAND
SOLAR PROGRAM COORDINATOR

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
dave.mcclelland@energytrust.org

KEITH ROSSMAN
SOLAR PROGRAM INTERN

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
keith.rossman@energytrust.org

LIZZIE RUBADO
RESIDENTIAL SOLAR PROJECT MANAGER

851 SW SIXTH AVE STE 1200
PORTLAND OR 97204
lizzie.rubado@energytrust.org

PETER WEST
DIRECTOR OF RENEWABLE ENERGY PROGRAMS

851 SW 6TH AVE - STE 1200
PORTLAND OR 97204
peter.west@energytrust.org

ENVIRONMENT OREGON

BROCK HOWELL
ADVOCATE

1536 SE 11TH AVE STE B
PORTLAND OR 97214
brock@environmentoregon.org

ENVIRONMENTAL LAW ALLIANCE WORLDWIDE

JENNIFER GLEASON

1877 GARDEN AVE
EUGENE OR 97403
jen@elaw.org

ENXCO

CHRISTOPHER DYMOND

1440 NEBRASKA AVE NE
SALEM OR 97301
christopherd@enxco.com

FIVE STARS INTERNATIONAL LTD

LYNN FRANK

2522 19TH ST SE
SALEM OR 97302
lynn.frank@fivestarsintl.com

IBEW

JOSEPH ESMONDE

15937 NE AIRPORT WAY
PORTLAND OR 97230-4958
joe@ibew48.com

IBEW LOCAL 659

RONALD W JONES

4480 ROGUE VALLEY HWY #3
CENTRAL POINT OR 97502-1695
ronjones@ibew659.org

IDAHO POWER COMPANY

RANDY ALLPHIN

rallphin@idahopower.com

DAVE ANGELL

PO BOX 70
BOISE ID 83707-0070
daveangell@idahopower.com

CHRISTA BEARRY

PO BOX 70
BOISE ID 83707-0070
cbearry@idahopower.com

KARL BOKENKAMP
GENERAL MANAGER-POWER SUPPLY PLANNING

PO BOX 70
BOISE ID 83707-0070
kbokenkamp@idahopower.com

JEANNETTE C BOWMAN

PO BOX 70
BOISE ID 83707
jbowman@idahopower.com

JOHN GALE
VP - REGULATORY AFFAIRS

PO BOX 70
BOISE ID 83707
rgale@idahopower.com

BARTON L KLINE
SENIOR ATTORNEY

PO BOX 70
BOISE ID 83707-0070
bkline@idahopower.com

JEFF MALMEN

PO BOX 70
BOISE ID 83707-0070
jmalmen@idahopower.com

LISA D NORDSTROM
ATTORNEY

PO BOX 70
BOISE ID 83707-0070
lnordstrom@idahopower.com

GREGORY W SAID
DIRECTOR - REVENUE REQUIREMENT

PO BOX 70
BOISE ID 83707
gsaid@idahopower.com

MARK STOKES
MANAGER, POWER SUPPLY & PLANNING

PO BOX 70
BOISE ID 83707
mstokes@idahopower.com

LANE POWELL PC

CAROLYN VOGT

601 SW SECOND AVE STE 2100
PORTLAND OR 97204-3158
vogtc@lanepowell.com

LIUNA

BEN NELSON
LEAD ORGANIZER

nrocnelson@qwest.net

MCDOWELL & RACKNER PC

WENDY MCINDOO
OFFICE MANAGER

520 SW 6TH AVE STE 830
PORTLAND OR 97204
wendy@mcd-law.com

LISA F RACKNER
ATTORNEY

520 SW SIXTH AVENUE STE 830
PORTLAND OR 97204
lisa@mcd-law.com

MILLER NASH ET AL

BRIAN B DOHERTY

111 SW 5TH STE 3400
PORTLAND OR 97204-3699
brian.doherty@millernash.com

**NORTHWEST ENVIRONMENTAL BUSINESS
COUNCIL**

ROBERT GROTT

620 SW FIFTH AVE STE 1008
PORTLAND OR 97204
robert@nebc.org

NORTHWEST NATURAL

BILL EDMONDS
DIRECTOR - ENVIRONMENTAL POLICY

220 NW 2ND AVE
PORTLAND OR 97209
wre@nwnatural.com

NORTHWEST STRATEGIES INC

LEN BERGSTEIN

lbergstein@aol.com

ANNIE LEINEWEBER

805 SW BROADWAY STE 400
PORTLAND OR 97205
noweststra@aol.com

OBSIDIAN FINANCE GROUP LLC

J FRANKLIN CABLE

10260 SW GREENBURG RD STE 1150
PORTLAND OR 97223
fcable@obsidianfinance.com

JEREMY W HULL

jhull@obsidianfinance.com

**OREGON MUNICIPAL ELECTRIC UTILITIES
ASSOC**

TOM O'CONNOR
EXECUTIVE DIRECTOR

PO BOX 928
SALEM OR 97308-0928
toconnor@teleport.com

OREGON RURAL ELECTRIC COOPERATIVE ASSN

SANDRA FLICKER

1750 LIBERTY ST SE
SALEM OR 97302-5159
sflicker@oreca.org

**OREGON SOLAR ENERGY INDUSTRIES
ASSOCIATION**

DESARI STRADER
EXECUTIVE DIRECTOR

12725 SW 66TH AVE - STE 107
PORTLAND OR 97223-2546
desari@oseia.org

**OREGONIANS FOR RENEWABLE ENERGY
PAYMENTS**

JUDY BARNES

1425 SE 37TH
PORTLAND OR 97214
jbarnes@hevanet.com

MARK PETE PENGILLY

PO BOX 10221
PORTLAND OR 97296
mpengilly@gmail.com

OSEIA

SETH PRICKETT
DIRECTOR, PUBLIC POLICY GOVT AFFAIRS

3548 NE SIXTH AVE
PORTLAND OR 97212
sethprickett@gmail.com

PACIFIC ENERGY VENTURES LLC

JUSTIN KLURE

jklure@peventuresllc.com

PACIFIC POWER & LIGHT

ERIK ANDERSON

825 NE MULTNOMAH ST STE 1800
PORTLAND OR 97232
erik.anderson@pacificcorp.com

JOELLE STEWARD
REGULATORY MANAGER

825 NE MULTNOMAH STE 2000
PORTLAND OR 97232
joelle.steward@pacificcorp.com

PACIFICORP

KYLE L DAVIS
MGR ENV POLICY & STRATEGY

825 NE MULTNOMAH STE 2000
PORTLAND OR 97232
kyle.l.davis@pacificcorp.com

RYAN FLYNN
LEGAL COUNSEL

825 NE MULTNOMAH, SUITE 1800
PORTLAND OR 97232
ryan.flynn@pacificcorp.com

PETER ROBERTS LLC

PETER ROBERTS

3731 PINE CANYON DR
EUGENE OR 97405
peterbroberts@comcast.net

PORTLAND GENERAL ELECTRIC

DOUG KUNS

121 SW SALMON ST
1WTC0702
PORTLAND OR 97204
doug.kuns@pgn.com

BRENDAN MCCARTHY
STATE AFFAIRS SPECIALIST

121 SW SALMON ST 1WTC0301
PORTLAND OR 97204
brendan.mccarthy@pgn.com

PORTLAND GENERAL ELECTRIC COMPANY

J RICHARD GEORGE
ASST GENERAL COUNSEL

121 SW SALMON ST 1WTC1301
PORTLAND OR 97204
richard.george@pgn.com

PUBLIC UTILITY COMMISSION OF OREGON

THERESA GIBNEY

PO BOX 2148
SALEM OR 97308
theresa.gibney@state.or.us

RATES & REGULATORY AFFAIRS - NW NATURAL

JENNIFER GROSS

220 NW 2ND AVENUE
PORTLAND OR 97209
jennifer.gross@nwnatural.com]

REC SOLAR

ANDREW NOEL

833 SE MAIN ST
PMB 134
PORTLAND OR 97214
anoel@recsolar.com

RENEWABLE NORTHWEST PROJECT

ANN ENGLISH GRAVATT
POLICY DIRECTOR

917 SW OAK - STE 303
PORTLAND OR 97205
ann@rnp.org

SUZANNE LETA LIOU
SENIOR POLICY ADVOCATE

917 SW OAK STE 303
PORTLAND OR 97205
suzanne@rnp.org

RESEARCH 13

BOB BEAULAUER

2597 KILHENNY CT
WEST LINN OR 97068
bob@research13.com

SOLAR CITY

COLIN MURCHIE

4007 29TH ST
MT. RAINIER MD 20712
cmurchie@solarcity.com

SOLAR ENERGY SOLUTIONS, INC.

ANDREW KOYAANISQATSI
PRESIDENT

3730 SE LAFAYETTE CT
PORTLAND OR 97202
andrew@solarenergyoregon.com

SOLARCITY

ROB LAVIGNE

6312 SW CAPTOL HWY., NO. 180
PORTLAND OR 97239
rlavigne@solarcity.com

SOLARWORLD CALIFORNIA

JANET M GAGNON
GOVERNMENT RELATIONS MANAGER

4650 ADOHR LN
CAMARILLO CA 93012
janet.gagnon@solarworldusa.com

STATE CAPITOL

REPRESENTATIVE TOBIAS READ

PO BOX 2101
BEAVERTON OR 97075
rep.tobiasread@state.or.us

STOEL RIVES LLP

DINA M DUBSON

900 SW FIFTH AVE STE 2600
PORTLAND OR 97204-1268
dmdubson@stoel.com

STEPHEN C HALL

900 SW FIFTH AVE - STE 2600
PORTLAND OR 97204-1268
schall@stoel.com

SUNEDISON

JOE HENRI

12500 BALTIMORE AVE
BELTSVILLE MD 20705
jhenri@sunedison.com

RUSS WRIGHT

rwright@sunedison.com

SUNLIGHT SOLAR ENERGY INC

CHANCE CURRINGTON
PROJECT MANAGER

chance.currington@sunlightsolar.com

SUSTAINABLE SOLUTIONS UNLIMITED LLC

STEVEN MCGRATH

1339 SE 8TH AVE # B
PORTLAND OR 97214
steve@solutions21st.com

TANGERINE SOLAR

STANLEY FLOREK

3518 FREMONT AVE N STE 267
SEATTLE WA 98103
stanley.florek@tangerinesolar.com

TANNER CREEK ENERGY

ALAN HICKENBOTTOM
PRESIDENT

4210 SW ALTADENA AVE
PORTLAND OR 97239
alan@tannercreekenergy.com

CRAIG STEWART

4210 SW ALTADENA AVE
PORTLAND OR 97239
craig@tannercreekenergy.com

THREE PHASE ELECTRIC

ROBERT LANE

rlane@threephaseelectric.com

TONKON TORP LLP

JACK ISSELMANN

888 SW FIFTH AVE STE 1600
PORTLAND OR 97204
jack.isselmann@tonkon.com

UNIVERSITY OF OREGON

FRANK E VIGNOLA

DEPARTMENT OF PHYSICS
1274 UNIVERSITY OF OREGON
EUGENE OR 97403-1274
fev@uoregon.edu

VOLTAIR WIND POWER INC

ROBERT MIGLIORI

24745 NE MOUNTAIN TOP RD
NEWBERG OR 97132
robert.migliori@gmail.com

VOTE SOLAR

CLAUDIA EYZAGUIRRE

400 BRANNAN ST STE 609
SAN FRANCISCO CA 94107
claudia@votesolar.org

WALMART

STEVE W CHRISS

2001 SE 10TH ST
BENTONVILLE AR 72716-0550
stephen.chriss@wal-mart.com

UM 1452
Service List (Parties)

TEDDY KEIZER

1615 SE 30TH AVE
PORTLAND OR 97214
teddy@goteddygo.com; teddy1a@aol.com

RAYMOND P NEFF

465-1/2 RIVER RD
EUGENE OR 97404
rpneff@efn.org

DANIEL WELDON

19790 SOUTH FERGUSON TERRACE
OREGON CITY OR 97045
danweldon@bctonline.com

**CABLE HUSTON BENEDICT HAAGENSEN & LLOYD,
LLP**

RAYMOND S KINDLEY

1001 SW FIFTH AVENUE, SUITE 2000
PORTLAND OR 97204-1136
rkindley@cablehuston.com

CITIZENS' UTILITY BOARD OF OREGON

GORDON FEIGNER
ENERGY ANALYST

610 SW BROADWAY, SUITE 308
PORTLAND OR 97205
gordon@oregoncub.org

ROBERT JENKS

610 SW BROADWAY STE 308
PORTLAND OR 97205
bob@oregoncub.org

G. CATRIONA MCCracken
LEGAL COUNSEL/STAFF ATTY

610 SW BROADWAY - STE 308
PORTLAND OR 97205
catriona@oregoncub.org

DAVISON VAN CLEVE

IRION A SANGER
ASSOCIATE ATTORNEY

333 SW TAYLOR - STE 400
PORTLAND OR 97204
ias@dvclaw.com

DAVISON VAN CLEVE PC

MELINDA J DAVISON

333 SW TAYLOR - STE 400
PORTLAND OR 97204
mail@dvclaw.com

DEPARTMENT OF JUSTICE

STEPHANIE S ANDRUS
ASSISTANT ATTORNEY GENERAL

REGULATED UTILITY & BUSINESS SECTION
1162 COURT ST NE
SALEM OR 97301-4096
stephanie.andrus@state.or.us

ECUMENICAL MINISTRIES OF OREGON

JENNY HOLMES
ENVIRONMENTAL MINISTRIES DIRECTOR

0245 SW BANCROFT, SUITE B
PORTLAND OR 97239
jholmes@emoregon.org

ECUMENICAL MINISTRIES OF OREGON

KATHLEEN NEWMAN
OREGON INTERFAITH POWER & LIGHT

1553 NE GREENSWORD DR
HILLSBORO OR 97214
knewman@emoregon.org

ENERGY TRUST OF OREGON

KACIA BROCKMAN

851 SW SIXTH AVE - STE 1200
PORTLAND OR 97204
kacia@energytrust.org

JOHN M VOLKMAN
GENERAL COUNSEL

851 SW 6TH AVE SUITE 1200
PORTLAND OR 97204
john.volkman@energytrust.org

ENVIRONMENTAL LAW ALLIANCE WORLDWIDE

JENNIFER GLEASON

1877 GARDEN AVE
EUGENE OR 97403
jen@elaw.org

ESLER STEPHENS & BUCKLEY

JOHN W STEPHENS

888 SW FIFTH AVE STE 700
PORTLAND OR 97204-2021
stephens@eslerstephens.com

IDAHO POWER COMPANY

RANDY ALLPHIN

rallphin@idahopower.com

CHRISTA BEARRY

PO BOX 70
BOISE ID 83707-0070
cbearry@idahopower.com

KARL BOKENKAMP
GENERAL MANAGER-POWER SUPPLY PLANNING

PO BOX 70
BOISE ID 83707-0070
kbokenkamp@idahopower.com

RICK GALE

rgale@idahopower.com

BARTON L KLINE
SENIOR ATTORNEY

PO BOX 70
BOISE ID 83707-0070
bkline@idahopower.com

JEFF MALMEN

PO BOX 70
BOISE ID 83707-0070
jmalmen@idahopower.com

LISA D NORDSTROM
ATTORNEY

PO BOX 70
BOISE ID 83707-0070
lnordstrom@idahopower.com

GREGORY W SAID
DIRECTOR - REVENUE REQUIREMENT

PO BOX 70
BOISE ID 83707
gsaid@idahopower.com

MARK STOKES
MANAGER, POWER SUPPLY & PLANNING

PO BOX 70
BOISE ID 83707
mstokes@idahopower.com

MICHAEL YOUNGBLOOD
SENIOR PRICING ANALYST

PO BOX 70
BOISE ID 83707
myoungblood@idahopower.com

MCDOWELL & RACKNER PC

WENDY MCINDOO
OFFICE MANAGER

520 SW 6TH AVE STE 830
PORTLAND OR 97204
wendy@mcd-law.com

LISA F RACKNER
ATTORNEY

520 SW SIXTH AVENUE STE 830
PORTLAND OR 97204
lisa@mcd-law.com

MULTNOMAH COUNTY

WARREN FISH

501 SE HAWTHORNE, STE 600
PORTLAND OR 97214
warren.fish@co.multnomah.or.us

MULTNOMAH COUNTY COMMISSIONER

COMMISSIONER JEFF COGEN

501 SE HAWTHORNE, STE 600
PORTLAND OR 97214
district2@co.multnomah.or.us

OREGON AFL-CIO

JOHN BISHOP

2110 STATE ST
SALEM OR 97301
afl-cio@oraficio.org; duke@oraficio.org

1635 NW JOHNSON ST
PORTLAND OR 97209
jbishop@mbjlaw.com

OREGON DISTRICT COUNCIL OF LABOERS

BEN NELSON

10245 SE HOLGATE BLVD
PORTLAND OR 97266
nrocnelson@qwest.net

OREGON DISTRICT COUNCIL OF LABORERS'

MELODY GUY

melodyg@qwestoffice.net

**OREGONIANS FOR RENEWABLE ENERGY
PAYMENTS**

JUDY BARNES

1425 SE 37TH
PORTLAND OR 97214
jbarnes@hevanet.com

MARK PETE PENGILLY

PO BOX 10221
PORTLAND OR 97296
mpengilly@gmail.com

PACIFICORP

RYAN FLYNN

825 NE MULTNOMAH, SUITE 1800
PORTLAND OR 97232
ryan.flynn@pacificcorp.com

PACIFICORP, DBA PACIFIC POWER

PACIFIC POWER OREGON DOCKETS

825 NE MULTNOMAH STREET, STE 2000
PORTLAND OR 97232
oregondockets@pacificcorp.com

PGE RATES & REGULATORY AFFAIRS

DOUG KUNS

PORTLAND GENERAL ELECTRIC COMPANY
121 SW SALMON STREET, 1WTC0702
PORTLAND OR 97204
pge.opuc.filings@pgn.com

PORTLAND GENERAL ELECTRIC COMPANY

J RICHARD GEORGE

121 SW SALMON ST 1WTC1301
PORTLAND OR 97204
richard.george@pgn.com

PUBLIC UTILITY COMMISSION OF OREGON

THERESA GIBNEY

PO BOX 2148
SALEM OR 97308
theresa.gibney@state.or.us

RENEWABLE NORTHWEST PROJECT

ANN ENGLISH GRAVATT

917 SW OAK - STE 303
PORTLAND OR 97205
ann@rnp.org

SUZANNE LETA LIOU

917 SW OAK STE 303
PORTLAND OR 97205
suzanne@rnp.org

SOLAR ENERGY SOLUTIONS, INC.

ANDREW KOYAANISQATSI

3730 SE LAFAYETTE CT
PORTLAND OR 97202
andrew@solarenergyoregon.com

**SOUTHEAST UPLIFT NEIGHBORHOOD
COALITION**

TIM O'NEIL

3534 SE MAIN ST
PORTLAND OR 97212
tim@southeastuplift.org

SUNEDISON

JOE HENRI

12500 BALTIMORE AVE
BELTSVILLE MD 20705
jhenri@sunedison.com

SUSTAINABLE SOLUTIONS UNLIMITED LLC

STEVEN MCGRATH

1339 SE 8TH AVE # B
PORTLAND OR 97214
steve@solutions21st.com