



# Washington State Clean Energy Financing Toolkit

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Michael Butler  
Cascadia Capital

Maud Daudon  
Seattle-Northwest Securities

CASCADIA  
CAPITAL LLC



# Washington State Clean Energy Investors: Along the Financing Continuum and Relevant Legislation

## Early Stage

*Seed funding / start-up financing*

- Founder
- Family
- Angel investors
- Federal and state grants

- Northwest Energy Angels
- Angels With Attitude
- Investors' Circle
- Yaletown Ventures
- Pivotal Investments
- Chrysalix Energy
- OVP Venture Partners

## Expansion Stage

*Bridge financing / Project financing*

- Venture capital
- Private equity
- Tax equity
- Project financing
- 3<sup>rd</sup> party debt

- Nth Power
- Cascadia Capital
- Seattle-Northwest Securities
- Technology Partners
- DFJ Element
- Rockport Partners
- Commercial banks

## Mature Stage

*Liquidation*

- Merger
- Acquisition
- IPO
- Leveraged buyout
- Collateralization
  
- Commercial banks

### Legislative Issues to Watch

- Waxman-Markey (House passed in June 2009), Kerry-Graham-Lieberman (cap and trade), Cantwell-Collins CLEAR Act (cap and dividend)
- Federal Clean Energy Deployment Administration (aka The Green Bank)
- State Property Assessed Clean Energy (PACE) bond financing legislation

# Washington Financing Resources: Wind Power

## Tax Credits and Incentives

Choice of Production Tax Credit (PTC), Investment Tax Credit (ITC) or grant in lieu of ITC

Bonus Depreciation: 50% depreciation deduction the year placed in service

MACRS Depreciation: Accelerated depr. schedule (5 yrs instead of 20 yrs)

Small Wind Investment Tax Credit: 30% credit for small wind turbine cost

WA Renewable Energy Production Incentive: \$0.12-0.54/kwh produced (\$5K cap)

WA sales and use tax exemption

Advanced Energy Credit: 30% tax credit for manufacturers of wind energy equipment

## Competitive Grants and Resources

Advanced Research Projects Agency - Energy (ARPA-E): Transformative energy research and development projects: [arpa.e.energy.gov/index.html](http://arpa.e.energy.gov/index.html)

Rural Energy for America Program (REAP) Grants. Up to 25% of project costs: [www.rurdev.usda.gov/rbs/farmbill/index.html](http://www.rurdev.usda.gov/rbs/farmbill/index.html)

R&D, Demonstration and Deployment Grants (\$2.5 B)

## Bonding and Financing Tools

DOE Loan Guarantee Program: \$6 billion in ARRA funds. Backs up to 80% of project costs

Build America Bonds (BABs): Taxable bond. 35% issuer cash subsidy or investor credit

Clean Renewable Energy Bonds (CREBs): Taxable bond. 70% rebate to issuer. (Competitively allocated)

Qualified Energy Conservation Bonds (QECBs): Taxable bond. 70% rebate to issuer. (Allocated by population)

Tax-exempt and taxable debt

DOE Financial Institution Partnership Program (FIPP): [www.lgprogram.energy.gov](http://www.lgprogram.energy.gov)

## Transaction Structures and Strategies

Grant Pre Tax After Tax Partnership (GPAP) or Flip Structure: 30% cash grant paid to tax equity investors up front, ownership flips after tax credit term ends

Economies of scale are necessary to access turbines, off-take agreement and transmission

Community Wind Programs: See Community Wind 101 Report at: [www.25x25.org](http://www.25x25.org) and more info at [www.nwseed.org](http://www.nwseed.org)

# Washington Financing Resources: Solar Power

## Tax Credits and Incentives

Extension of Investment Tax Credit (ITC) sunset date to December 31, 2012

Extension of Bonus Depreciation through 2009: 50% deduction in Year 1

MACRS Depreciation: Accelerated depr. schedule (5 yrs instead of 20 yrs)

Advanced Energy Project Credit: 30% tax credit for manufacturers of solar energy equipment

WA Renewable Energy Production Incentive: \$0.12-0.54/kwh produced

WA sales and use tax exemption for renewable energy equipment and installation

## Competitive Grants and Resources

ARPA-E Grants: Transformative energy R&D projects

Rural Energy for America Program (REAP) Grants: [www.rurdev.usda.gov](http://www.rurdev.usda.gov)

Solar Adoption and Workforce Development Funding (DOE)

Solar Energy Technologies Program (DOE): Baseload CSP generation funding

Community Renewable Energy Deployment Grants (DOE)

Cash grant in lieu of ITC

Green Jobs and Workforce Development Funding (DOL).

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Tax-exempt and taxable debt

DOE Financial Institution Partnership Program (FIPP): [www.lgprogram.energy.gov](http://www.lgprogram.energy.gov)

## Transaction Structures and Strategies

Power Purchase Agreement (PPA): Developer installs, maintains and finances system. Customers pay for power.

Capital lease: Customer pays lease payments over time and buys system after tax credits/depreciation benefits have ended.

Municipal lease: Government customer pays lease payments. Cannot use tax credits because of tax-exempt status.

Tax-exempt financing via Property Assessed Clean Energy Bonds (legislation needed in WA)

Community Solar: Shared ownership among citizens (i.e. City of Ellensburg). See [www.b-e-f.org](http://www.b-e-f.org) for more info.

# Washington Financing Resources: Energy Efficiency

## Tax Credits and Incentives

Residential Energy Credit: ARRA removed \$2,000 cap on residential EE property credit

Non-business Energy Property Tax Credit: 30% tax credit for costs related to EE upgrades during 2009-2010. \$1,500 limit.

Utility rebates, loan programs and grants

Weatherization Assistance Program: Funding for low-income housing upgrades: [www.commerce.wa.gov](http://www.commerce.wa.gov)

Energy Efficient Mortgages: [www.energystar.gov/index](http://www.energystar.gov/index)

## Competitive Grants and Resources

WSU Energy Program: Grants, technical assistance: [www.energy.wsu.edu](http://www.energy.wsu.edu)

Rural Energy for America Program (REAP) Grants: [www.rurdev.usda.gov](http://www.rurdev.usda.gov)

Bonneville Environmental Foundation: Solar 4R Schools

SBA 504 loans: [www.sba.gov/energy](http://www.sba.gov/energy)

EE and Conservation Block Grant Retrofit Ramp-Up: [www.eecbg.energy.gov](http://www.eecbg.energy.gov)

DOE ARRA grants: [www07.grants.gov](http://www07.grants.gov)

WA EE Credit Enhancement Program: \$5 million in grants for EE lending credit support

WA EE and RE Loan Program + State Energy Program: [www.commerce.wa.gov](http://www.commerce.wa.gov)

## Bonding and Financing Tools

Build America Bonds (BABs): Taxable bond. 35% issuer cash subsidy or investor tax credit

Qualified Energy Conservation Bonds (QECCBs): Taxable bond. 70% rebate to issuer. (Allocated by population)

WA State Treasurer's Local Option Capital Asset Lending (LOCAL) Program: [www.tre.wa.gov/LOCAL/index](http://www.tre.wa.gov/LOCAL/index)

Tax-exempt and taxable debt

## Transaction Structures and Strategies

Performance contracting: Financing based on guaranteed energy cost savings

Property Assessed Clean Energy (PACE) Bond Financing (Legislation needed in WA)

Utility financing via conservation loan programs, rebates and grants

# Washington Financing Resources: Sustainable Biofuels

## Tax Credits and Incentives

Advanced Energy Project Credit: 30% tax credit for biofuel manufacturing facilities. (Competitively allocated)

WA Renewable Energy Production Incentive: \$0.12-0.54/kwh produced (\$5K cap)

WA sales and use and B&O tax reduction and exemption: [dor.wa.gov](http://dor.wa.gov)

Puget Sound Clean Air Agency's Diesel Solutions Program: [www.pscleanair.org](http://www.pscleanair.org)

## Competitive Grants and Resources

ARPA-E Grants: Transformative energy R&D projects

Rural Energy for America Program (REAP) Grants: [www.rurdev.usda.gov](http://www.rurdev.usda.gov)

USDA Biomass producer supplementary payments: [www.fsa.usda.gov](http://www.fsa.usda.gov)

Ethanol Blend Infrastructure Grants (DOE)

BioEnergy Washington: [www.bioenergy.wa.gov](http://www.bioenergy.wa.gov)

Alternative Fuels & Advanced Vehicles Data Center: [www.afdc.energy.gov](http://www.afdc.energy.gov)

Puget Sound Clean Cities: [www.pugetsoundcleancities.org](http://www.pugetsoundcleancities.org)

National Biodiesel Board: [www.biodiesel.org](http://www.biodiesel.org)

## Bonding and Financing Tools

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Qualified Energy Conservation Bonds (QEGBs): Taxable bond. 70% rebate to issuer. (Allocated by population)

## Transaction Structures and Strategies

Vertical integration to maintain control of feed stocks, often by agricultural / pulp and paper companies

Biofuel production from recycled waste oil and animal fats (e.g., General Biodiesel)

Algae-to-fuels (e.g., Blue Marble Energy)

# Washington Financing Resources: Smart Grid

## Tax Credits and Incentives

Advanced Energy Project Credit: 30% tax credit for smart grid component manufacturing facilities. (Competitively allocated)

## Competitive Grants and Resources

Office of Electricity Delivery & Energy Reliability (\$40 B):  
[www.oe.energy.gov](http://www.oe.energy.gov)

Workforce Training for Electric Power System (\$100 M): Close date: 11/30/09

ARPA-E Grants: Transformative energy R&D projects

Smart Grid Demonstrations (\$615 M), Smart Grid Investment Grants (\$3.4 B)

R&D, Demonstration and Deployment Grants (\$2.5 B)

## Bonding and Financing Tools

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Qualified Energy Conservation Bonds (QECBs): Taxable bond. 70% rebate to issuer. (Allocated by population)

## Transaction Structures and Strategies

Pacific Northwest Smart Grid Demonstration Project: Proposed collaboration among BPA and 12 utilities in the NW

GridWise Demonstration Project: BPA partnership with Pacific Northwest Natl Lab

BPA's McNary-John Day transmission project in WA and OR (\$343 M in ARRA funding)