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 Port of Vancouver, USA
 Portland Energy Conservation, Inc.
 REC Silicon
 RES America Developments
 Ridgeline Energy
 Solar Oregon
 SolarCity
 Stoel Rives, LLP
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 Suzlon Wind Energy Corporation
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Renewable
Northwest
Project

Renewable Energy Investment in Washington State: Solar Manufacturing, Wind, Geothermal and New Biomass

More than **\$7.9 billion** has been invested in Washington's renewable energy industry.

Total Capital Investment	
Wind	\$5,759,000,000
Solar Manufacturing	\$1,600,000,000
Geothermal (research)	\$5,975,000
Biomass	\$538,945,000
Total:	\$7,903,920,000

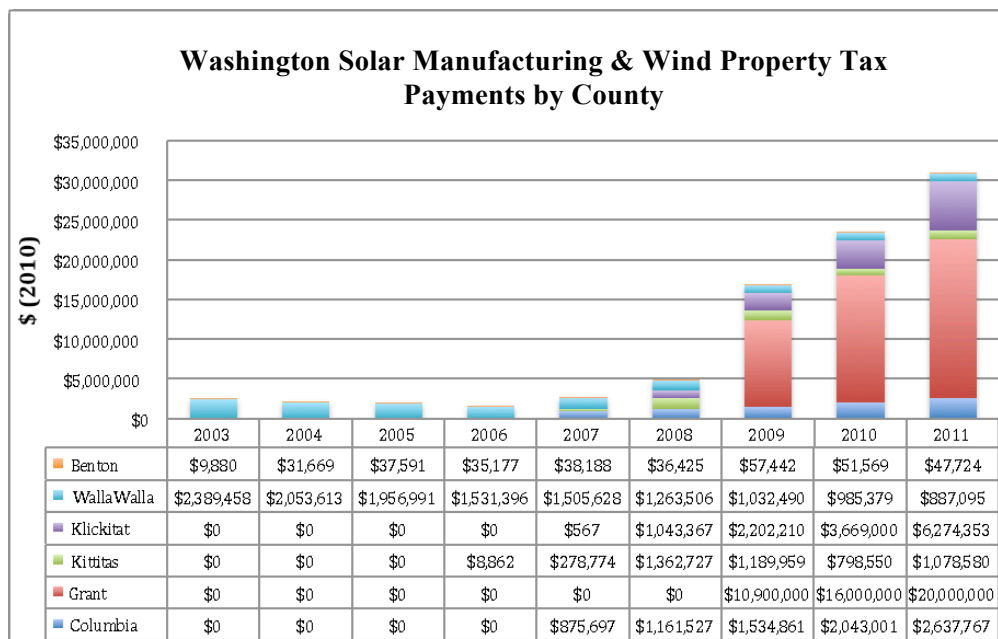
The Numbers by County

Wind Energy Development

County	Capacity (MW)	Capital Investment	Construction Jobs	Operating Jobs	2011 Cumulative Property Tax Revenue
Benton	95.9	\$162,000,000	81	12	\$345,666
Columbia	367.2	\$514,000,000	480	18	\$8,252,853
Garfield	342.7	\$727,000,000	250	25	Pending
Kittitas	463.4	\$895,000,000	750	42	\$4,717,451
Klickitat	1,522.8	\$3,117,000,000	1,519	103	\$13,189,498
Walla Walla	176.9	\$174,000,000	100	14	\$13,605,556
Whitman	100	\$170,000,000	129	15	Pending
Total	3,069	\$5,759,000,000	3,309	229	\$40,111,024

Solar Manufacturing

County	Capital Investment	Construction Jobs	Operating Jobs	2011 Cumulative Property Tax Revenue
Grant	\$1,600,000,000	1,500	700	\$46,900,000



Geothermal Research Funding

County	Research Funding Recipient	Capital Investment
Benton	Pacific Northwest National Laboratory (2 grants)	\$1,160,000
King	Honeywell with Applied Physics Systems	\$4,815,126
	Total	\$5,975,126

New Biomass Development

County	Capacity (MW)	Capital Investment
Clallam	20	\$56,394,540
Grays Harbor	18	\$50,755,086
King	208	\$25,000,000
Kitsap	0.2	\$563,945
Klickitat	15.5	\$37,393,452
Okanogan	12.5	\$35,246,587
Pierce	57.8	\$161,296,935
Skagit	30.8	\$86,847,591
Snohomish	7.65	\$21,570,911
Thurston	0.3	\$845,918
Whatcom	1.3	\$3,455,782
Yakima	1.2	\$3,383,672
Total	373.3	\$538,945,397

Sources:

When calculating capital investment and job creation for wind development, developer interview data was used first (44%). When developer information was unavailable, media reports were used (33%). When media data was unavailable, conservative \$/kW estimates were used (22%), based on:

Wiser, Ryan and Bolinger, Mark. Lawrence Berkeley National Laboratory (LBNL). *2009 Wind Technologies Report*. August, 2010. <http://eetd.lbl.gov/ea/emp/reports/lbnl-3716e.pdf>

Solar Manufacturing capital investment and jobs numbers were based on direct conversations with Lon Topaz, Energy Resources Manager of REC Silicon in Moses Lake, WA.

Geothermal Research investment data from US Department of Energy:

<http://www4.eere.energy.gov/geothermal/projects/194>

<http://www4.eere.energy.gov/geothermal/projects/50>

<http://www4.eere.energy.gov/geothermal/projects/44>

Biomass capital investment figures were based on estimates of \$2,218/MW for Landfill Gas and \$2,819/MW for other biomass energy facilities. These estimates were derived from National Renewable Energy Laboratory's "Supporting Data for Energy Technology Costs" and represents a relatively conservative estimate:

http://www.nrel.gov/analysis/docs/re_costs_20100618.xls

Job creation figure for biomass is based on an estimate of 4.9 jobs/MW from:

Morris, G. 1999. The value of the Benefits of USA Biomass Power. Green Power Institute, California & NREL: <http://www.nrel.gov/docs/fy00osti/27541.pdf>

Property tax data was obtained from County Assessors and Treasurers. The data includes the PUD Privilege Tax paid by Energy Northwest for the Nine Canyons wind facility in Benton County. The total value of the payments is adjusted for inflation to \$2010 using the Consumer Price Index (CPI).