

5th Plan Conservation Target Calculator Posted 1/27/2010

Introduction: The purpose of this calculator is to provide utilities with a simple means to compute "their share" of the Northwest Power and Conservation Council 5th Plan's regional conservation target. This calculator is intended to provide utilities with an "approximation" of the level of conservation they should target in order to be consistent with the Council's regional goals. The Council does not formally assign individual utility targets in its planning process. Individual utility conservation goals are best established through utility integrated resource planning processes which can better account for local conditions and legal requirements. Nevertheless, the results of this calculator can be used as rough guidance for utility conservation program planning until such time as a utility completes its own integrated resource plan or other similar process.

Instructions: Select utility from the pull-down menu in row 12. Three options are provided to calculate individual utility shares of the 5th Plan's conservation target. Option 1 is best suited for larger utilities whose retail sales across residential, commercial and industrial sectors reasonably match those of the entire region. Option 2 is best suited for any utility regardless of size that does not have significant retail sales to irrigated agriculture. Options 1 and 2 do not require any input data. Users only need to select the utility service territory of interest. Option 3 requires that the user enter the utility's 2005 retail sales to the irrigated agriculture sector (cell i38). Option 3 is the preferred approach since it best accounts for differences in both the resource potential and the 5th Plan's targets across sectors. The results for Option 3 are not valid unless a utility's irrigation sector retail sales have been entered by the user. *Note: Utilities that serve multiple states must add each states results together to determine their totals.*

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------------------------------|-------------------------|---|---------|---------|---------|-----------------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|-----------------------------------|-----------|-----------|
| Version Number => | | 1 - 8 | | Utility Shares Based on EIA Data for => | | 2007 | | Last Revised => | | 1/25/2010 | | | | | | | | | | | | | |
| Option 1 - Target Based on Utility Share of Total Regional Retail Sales | | | | | | | | | | | | | | | | | | | | | | | |
| Select Utility Service Area | | Annual Conservation Target (aMW) | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | | |
| Puguet Sound Energy Inc - WA | | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 362.0 | 18.10 |
| Total - All Sectors | | 17.66 | 18.34 | 19.02 | 19.70 | 20.38 | 21.06 | 21.74 | 22.41 | 23.09 | 23.77 | 24.45 | 23.77 | 14.94 | 13.58 | 13.58 | 12.91 | 12.91 | 12.91 | 12.91 | 12.91 | | |
| Option 2 - Target Based on Utility Share of Total Regional Retail Sales by Sector | | | | | | | | | | | | | | | | | | | | | | | |
| Year | | Annual Conservation Target (MWH) | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | | |
| Residential | | 7.56 | 7.98 | 8.40 | 8.82 | 9.24 | 9.66 | 10.08 | 10.50 | 10.91 | 11.33 | 12.59 | 13.01 | 9.24 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 182.2 | 9.11 |
| Commercial | | 6.98 | 7.41 | 7.85 | 8.28 | 8.72 | 9.16 | 10.46 | 10.90 | 10.46 | 10.90 | 11.34 | 11.77 | 8.72 | 8.72 | 8.72 | 7.85 | 7.85 | 7.85 | 7.85 | 7.85 | 179.6 | 8.98 |
| Industrial and Irrigated Agriculture | | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.35 | 1.35 | 1.52 | 1.52 | 1.35 | 1.01 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 18.5 | 0.93 |
| Total - All Sectors | | 16.05 | 16.90 | 17.76 | 18.62 | 19.47 | 20.33 | 21.89 | 22.74 | 22.89 | 23.75 | 25.28 | 25.80 | 18.12 | 16.44 | 16.44 | 15.57 | 15.57 | 15.57 | 15.57 | 15.57 | 380.4 | 19.02 |
| Option 3 - Target Based on Utility Reported Share of Total Regional Retail Sales by Sector - Adjusted for Irrigation Sales | | | | | | | | | | | | | | | | | | | | | | | |
| Sector | | 2006 Retail Sales (MWH) | Share of Regional Sales | EIA includes irrigation sales in its industrial sector total. In order to adjust for this, please enter your utility's 2006 retail sales in MWH for irrigation below in row 38. The industrial sector sales will update automatically so that the total still agrees with EIA data. | | | | | | | | | | | | | | | | Reported Industrial and Irrigated Agriculture | | | |
| Residential | | 10,909,007 | 16.79% | Combined Ind & Irrig Sales (MWh) => | | | | | | | | | | | | | | | | 1,369,242 | | | |
| Commercial | | 9,348,288 | 17.44% | Net Industrial Sales (MWh) => | | | | | | | | | | | | | | | | 1,369,242 | | | |
| Industrial | | 1,369,242 | 3.92% | Enter 2006 Irrigation Sales (MWh) => | | | | | | | | | | | | | | | | - | | | |
| Irrigated Agriculture | | - | 0.00% | | | | | | | | | | | | | | | | | - | | | |
| Total - All Sectors | | 21,626,537 | 13.58% | | | | | | | | | | | | | | | | | - | | | |
| Option 3 - Target Based on Utility Reported Share of Total Regional Retail Sales by Sector - Adjusted for Irrigation Sales | | | | | | | | | | | | | | | | | | | | | | | |
| Year | | Annual Conservation Target (MWH) | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | | |
| Residential | | 7.557 | 7.976 | 8.396 | 8.816 | 9.236 | 9.656 | 10.075 | 10.495 | 10.915 | 11.335 | 12.594 | 13.014 | 9.236 | 7.557 | 7.557 | 7.557 | 7.557 | 7.557 | 7.557 | 7.557 | 182.2 | 9.11 |
| Commercial | | 6.975 | 7.411 | 7.847 | 8.283 | 8.719 | 9.155 | 10.463 | 10.899 | 10.463 | 10.899 | 11.335 | 11.771 | 8.719 | 8.719 | 8.719 | 7.847 | 7.847 | 7.847 | 7.847 | 7.847 | 179.6 | 8.98 |
| Industrial | | 1.372 | 1.372 | 1.372 | 1.372 | 1.372 | 1.372 | 1.372 | 1.372 | 1.568 | 1.568 | 1.568 | 1.176 | 0.196 | 0.196 | 0.196 | 0.196 | 0.196 | 0.196 | 0.196 | 0.196 | 18.4 | 0.92 |
| Irrigated Agriculture | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total - All Sectors | | 15.904 | 16.760 | 17.615 | 18.471 | 19.327 | 20.183 | 21.910 | 22.766 | 22.946 | 23.802 | 25.497 | 25.961 | 18.151 | 16.472 | 16.472 | 15.600 | 15.600 | 15.600 | 15.600 | 15.600 | 380.2 | 19.01 |
| Option 3 - Target Based on Utility Reported Share of Total Regional Retail Sales by Sector - Adjusted for Irrigation Sales | | | | | | | | | | | | | | | | | | | | | | | |
| Year | | Annual Conservation Target (MWH) | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | | |
| Residential | | 66,195 | 69,873 | 73,550 | 77,228 | 80,905 | 84,583 | 88,260 | 91,938 | 95,615 | 99,293 | 110,325 | 114,003 | 80,905 | 66,195 | 66,195 | 66,195 | 66,195 | 66,195 | 66,195 | 66,195 | 1,596,036 | 79,801.8 |
| Commercial | | 61,105 | 64,924 | 68,743 | 72,563 | 76,382 | 80,201 | 91,658 | 95,477 | 91,658 | 95,477 | 99,296 | 103,115 | 76,382 | 76,382 | 76,382 | 68,743 | 68,743 | 68,743 | 68,743 | 68,743 | 1,573,461 | 78,673.0 |
| Industrial | | 12,018 | 12,018 | 12,018 | 12,018 | 12,018 | 12,018 | 12,018 | 12,018 | 13,734 | 13,734 | 13,734 | 10,301 | 1,717 | 1,717 | 1,717 | 1,717 | 1,717 | 1,717 | 1,717 | 1,717 | 161,379 | 8,069.0 |
| Irrigated Agriculture | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total - All Sectors | | 139,318 | 146,814 | 154,311 | 161,808 | 169,304 | 176,801 | 191,936 | 199,432 | 201,007 | 208,504 | 223,356 | 227,419 | 159,003 | 144,293 | 144,293 | 136,655 | 136,655 | 136,655 | 136,655 | 136,655 | 3,330,876 | 166,543.8 |

Option 2 - Target Based on Utility Share of Total Regional Retail Sales by Sector

| Annual Conservation Target (MWH) | | | | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|-----------------------------------|--------------|
| Year | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2024 | 2024 | |
| Residential | 7.56 | 7.98 | 8.40 | 8.82 | 9.24 | 9.66 | 10.08 | 10.50 | 10.91 | 11.33 | 12.59 | 13.01 | 9.24 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 182.2 | 9.11 |
| Commercial | 6.98 | 7.41 | 7.85 | 8.28 | 8.72 | 9.16 | 10.46 | 10.90 | 10.46 | 10.90 | 11.34 | 11.77 | 8.72 | 8.72 | 8.72 | 7.85 | 7.85 | 7.85 | 7.85 | 7.85 | 7.85 | 179.6 | 8.98 |
| Industrial and Irrigated Agriculture | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.35 | 1.35 | 1.52 | 1.52 | 1.35 | 1.01 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 18.5 | 0.93 |
| Total - All Sectors | 16.05 | 16.90 | 17.76 | 18.62 | 19.47 | 20.33 | 21.89 | 22.74 | 22.89 | 23.75 | 25.28 | 25.80 | 18.12 | 16.44 | 16.44 | 15.57 | 15.57 | 15.57 | 15.57 | 15.57 | 15.57 | 380.4 | 19.02 |

| Annual Conservation Target (MWH) | | | | | | | | | | | | | | | | | | | | | Total 2005 - 2024 | Average Annual Target 2005 - 2024 | |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-----------------------------------|-------------------|
| Year | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2024 | 2024 | |
| Residential | 66,195.0 | 69,872.5 | 73,550.0 | 77,227.5 | 80,905.0 | 84,582.5 | 88,260.1 | 91,937.6 | 95,615.1 | 99,292.6 | 110,325.1 | 114,002.6 | 80,905.0 | 66,195.0 | 66,195.0 | 66,195.0 | 66,195.0 | 66,195.0 | 66,195.0 | 66,195.0 | 66,195.0 | 1,596,035.9 | 79,801.80 |
| Commercial | 61,105.3 | 64,924.3 | 68,743.4 | 72,562.5 | 76,381.6 | 80,200.7 | 91,657.9 | 95,477.0 | 91,657.9 | 95,477.0 | 99,296.1 | 103,115.1 | 76,381.6 | 76,381.6 | 76,381.6 | 68,743.4 | 68,743.4 | 68,743.4 | 68,743.4 | 68,743.4 | 68,743.4 | 1,573,460.7 | 78,673.03 |
| Industrial and Irrigated Agriculture | 13,285.7 | 13,285.7 | 13,285.7 | 13,285.7 | 13,285.7 | 13,285.7 | 11,009.5 | 11,809.5 | 13,285.7 | 13,285.7 | 11,809.5 | 8,857.1 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 1,476.2 | 162,380.4 | 8,119.02 |
| Total - All Sectors | 140,586.0 | 148,082.6 | 155,579.1 | 163,075.7 | 170,576.3 | 178,068.9 | 191,727.4 | 199,224.0 | 200,558.6 | 208,055.2 | 221,430.6 | 225,974.8 | 158,762.8 | 144,052.8 | 144,052.8 | 136,414.7 | 136,414.7 | 136,414.7 | 136,414.7 | 136,414.7 | 136,414.7 | 3,331,877.0 | 166,593.85 |

**Ten-year Potential
1,871,908 MWh**

**Biennial Target
369,796 MWh**

