2025 DEMAND RESPONSE POTENTIAL ASSESSMENT

Public Utility District No. 1 of Cowlitz County

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Introduction

This report summarizes the 2025 Demand Response Potential Assessment (DRPA) conducted by Lighthouse Energy Consulting and Nauvoo Solutions (the project team) for PUD No. 1 of Cowlitz County (Cowlitz PUD). The DRPA estimated the cost-effective demand response potential for 2026 to 2045.

The DRPA generally followed the methodology used by the Northwest Power and Conservation Council (Council) in the 2021 Power Plan and included many of the same demand response (DR) products. This DRPA includes products in the residential, commercial, and industrial sectors. The DR products impact both the summer and winter seasons and utilize a range of strategies, including direct load control, customer-initiated demand curtailment, and time-varying prices in order to effect reductions in peak demand.

Background

The 2021 Power Plan defines DR as "a non-persistent intentional change in net electricity usage by end-use customers from normal consumptive patterns in response to a request on behalf of, or by, a power and/or distribution/transmission system operator. This change is driven by an agreement, potentially financial, or tariff between two or more participating parties."[1]

DR has not been widely used in the Northwest but has received increased interest in recent years. Growing capacity constraints associated with the closure of regional coal-fired power plants, increases in policies requiring the use of carbon-neutral or renewable energy such as Washington's Clean Energy Transformation Act (CETA), and operational limitations placed on the region's hydropower system are all driving a need for cost-effective generation capacity. DR offers a solution to reduce system demands, help integrate renewable resources, and alleviate congestion on transmission and distribution systems.

In addition, the CETA requires utilities to assess the amount of DR resource potential that is cost-effective, reliable, and feasible, and use that assessment to identify a target for DR in each Clean Energy Implementation Plan (CEIP). The first CEIP was due January 1, 2022, and updates are due every subsequent four years.

Cowlitz PUD currently has arrangements with its large industrial customers that resemble common industrial DR programs such as real time pricing and demand curtailment programs. In addition, the NORPAC paper mill has participated in past demand response pilots. This assessment includes estimates of the DR available through Cowlitz PUD's large industrial customers and expands the consideration of demand response to other sectors.

[1] Northwest Power and Conservation Council, *2021 Power Plan.* March 10, 2022. https://www.nwcouncil.org/fs/17680/2021powerplan_2022-3.pdf

Methodology

The project team developed this DRPA by identifying the DR products to be included in the assessment, quantifying their costs and benefits, and then quantifying Cowlitz PUD's customer base that could adopt them.

Like a conservation potential assessment, the DR potential calculation process began with the quantification of technical potential, which is the maximum amount of DR possible without regard to cost or market barriers to limit participation. The assessment then considered market barriers, program participation rates, and other factors to quantify the achievable potential. Finally, the economic potential is quantified by applying a total resource cost (TRC) perspective cost-benefit test to the achievable potential. This methodology is discussed further below.

Demand Response Products

This DRPA included many of the same products included in the 2021 Power Plan. These products cover a range of sectors, end uses, and product types. While Cowlitz PUD is not a summer peaking utility, it could be exposed to high market prices in the summer, so the project team included DR products impacting both the summer and winter seasons.

The high-level categories of DR products included in this assessment are summarized in Table 1 below, which organizes the products by sector and implementation strategy.

Table 1: Demand Response Products

	Residential	Commercial	Industrial
Direct Load Control	• EV Charging • Grid-Enabled Water Heater • Water Heater Switch • Space Heating Switch • Space Cooling Switch • Smart Thermostat	• Space Heating Switch • Space Cooling Switch • Smart Thermostat	
Demand Curtailment		• Demand Curtailment	• Demand Curtailment
Time-Varying Prices	• Time of Use (TOU) Pricing • Critical Peak Pricing	• Critical Peak Pricing	• Critical Peak Pricing • Real Time Pricing

Direct load control (DLC) products are those in which the utility has direct control of the operation of applicable equipment. This could be achieved by adding switch controls to existing equipment or controlling equipment with integrated controls such as smart thermostats and grid-enabled hot water heaters. DLC products typically achieve high event participation rates as participation in an event is only limited by the success of the controlled equipment receiving and implementing any instructions to change its operation or customer intervention to opt out of a demand response event.

Demand curtailment is like DLC but requires the intervention of customers to implement reductions in load. These products usually involve contracts between the customer and utility that detail the amount, duration, and frequency of load reductions. Time-varying price products rely on a variety of tariff-based strategies to encourage customers to respond to higher energy or demand prices. Participation in curtailment and price-based programs depends on customer willingness to shift energy usage, the expectations from the utility of how often and long events would occur, and the incentives for participating.

The project team customized the assumptions for these products to better reflect Cowlitz PUD's service territory and projections of equipment saturations based on Cowlitz PUD's 2025 Conservation Potential Assessment (2025 CPA). For example, the project team used the projections of future adoption of heat pump water heaters and smart thermostats from the 2025 CPA to estimate the number of homes with these technologies that could participate in related demand response programs.

Appendix I of this report includes a complete list of the products used in this assessment.

Customer and Sales Forecasts

Once the products were identified, the project team then quantified the customer base that could adopt the products. The project team, with support from Cowlitz PUD, developed 20-year forecasts of customer sales and counts for each sector. Summaries of these forecasts are shown in Figure 1 and Figure 2. In the long term, approximately 75% of Cowlitz PUD's sales are in the industrial sector. In contrast, the majority of the customers are in the residential sector. In the residential sector, customer counts and saturations of eligible equipment are the primary determinants of DR potential. In the commercial and industrial sectors, the potential is largely determined by forecasted sales.

Figure 1: Sales Forecast by Sector

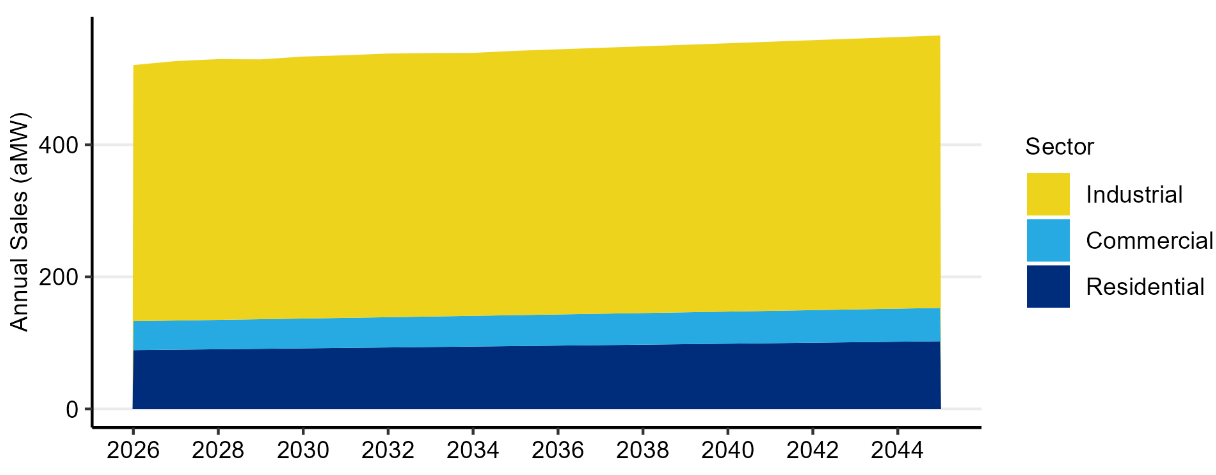
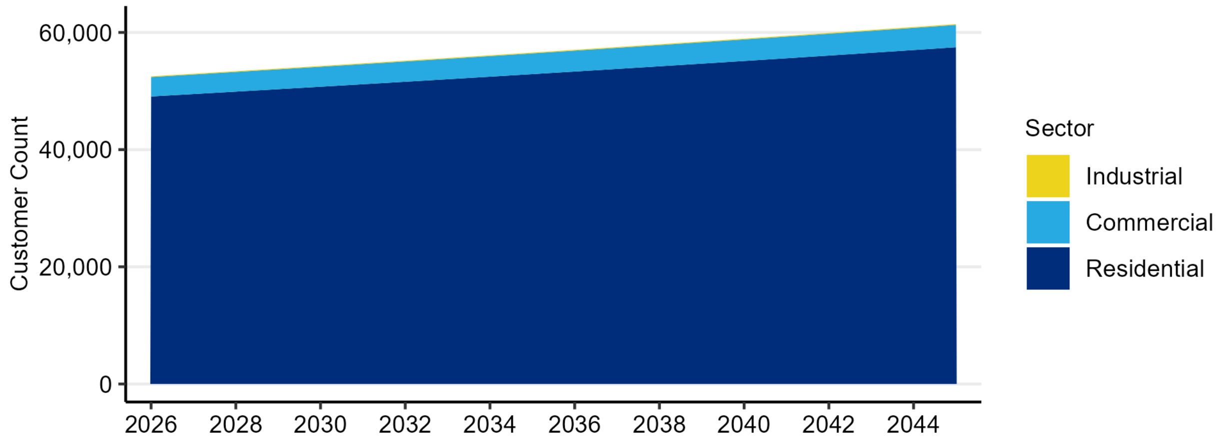


Figure 2: Customer Count Forecast by Sector

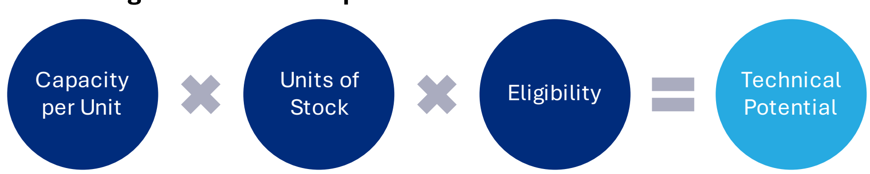


Technical Potential

The project team quantified the technical DR potential by a combination of bottom-up and top-down methodologies, depending on how the impact of a given product was quantified. In products where the impacts are quantified in terms of an assumed demand impact per unit, the bottom-up methodology is used. For example, smart thermostats have an assumed demand impact of approximately 1 kilowatt per thermostat in the winter. Products with percentage-based impacts use the top-down method. For example, residential time of use rates are modeled on a top-down basis using an assumed demand reduction of approximately 3% during winter on-peak periods. These methodologies are described further below.

In the bottom-up method, illustrated in Figure 3, the per-unit demand reduction estimate for each DR product was multiplied by the number of technically possible opportunities. The number of opportunities was determined by multiplying the units of stock, such as the number of homes, by an eligibility factor. This factor quantifies the share of units that are eligible to install the DR product or participate in a program. The factor is typically determined based on the share of buildings with the appropriate equipment installed. For example, in quantifying the potential associated with a residential smart thermostat demand response program, the eligibility factor would be the share of homes in Cowlitz PUD's service territory with a smart thermostat installed.

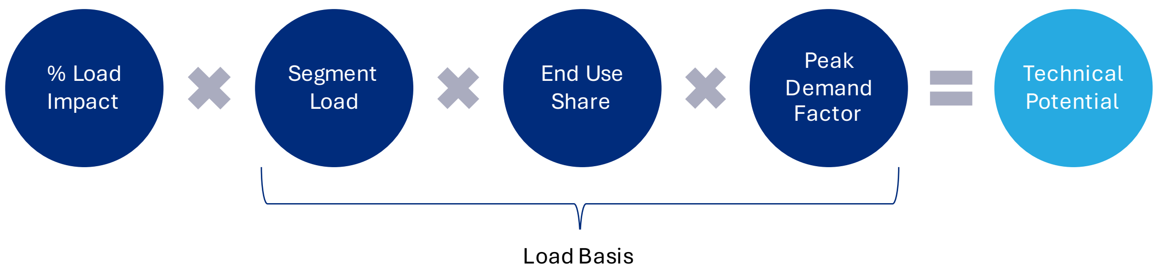
Figure 3: Bottom-Up Technical Potential Calculation



This analysis used the capacity values determined by Council in the 2021 Power Plan or through additional research and analysis conducted by the project team. Stock unit counts were developed from data provided by Cowlitz PUD, Census data, and regional stock assessments. Finally, the eligibility factors were determined by a combination of data from Cowlitz PUD's 2025 CPA and the 2021 Power Plan. The project team used projections of the future adoption of technologies such as smart thermostats and heat pump water heaters from Cowlitz PUD's 2025 CPA to inform the future potential identified in this DRPA.

In the top-down method, the technical potential was determined by multiplying each DR product's assumed load impact by an applicable load basis. The impact is the estimated demand reduction, expressed as a percentage, and the load basis is measured in units of demand. The load basis was determined by multiplying the load of a given customer segment by the share of load within the impacted end use. For example, with products controlling HVAC equipment, the load basis is calculated by multiplying the overall load of the customer segment and the share of energy used by HVAC equipment. Finally, a peak demand factor converts annual energy consumption values into an average demand, based on the expected number and duration of DR events, and their coincidence with Cowlitz PUD's expected system peaks. This calculation is shown in Figure 4.

Figure 4: Top-Down Technical Potential Calculation



The load impact assumptions and end use shares were taken from the 2021 Power Plan or developed from research conducted by the project team. The segment loads within each sector utilized sector-level forecasts developed with Cowlitz PUD. The project team calculated the peak demand factors based on 2021 Power Plan load shapes and their coincidence with Cowlitz PUD's system peaks.

Achievable Potential

The project team quantified the achievable potential for each product by adjusting the technical potential to include considerations for program and event participation rates and program ramp up. Program participation is the proportion of eligible customers who participate in a DR program while event participation quantifies the share of program participants that engage in any given DR event. For DR products enabled through DLC, the event participation rate depends on the success of the controlled equipment responding to the control signal and reducing demand as well as participant opt-outs, while for other types of programs this factor considers the likelihood of human intervention.

The annual rate of DR program adoption was based on ramp rates. Ramp rates consider whether a program is starting from scratch or already has traction in the market and how long it will take to reach its maximum participation levels. This assessment generally used the ramp rates used in the 2021 Power Plan, where most products were given a ramp rate that reflects a 5- or 10-year ramp up period.

The calculation of achievable potential is the same for both bottom-up and top-down methods and is shown in Figure 5.

Figure 5: Achievable Potential Calculation

Economic Potential

The economic potential was determined by applying a TRC-based cost-effectiveness screening to the achievable potential described above. To perform this screening, the project team estimated the costs of capacity avoided through demand response for Cowlitz PUD and compared those to the estimated program costs for each product. Table 2 summarizes the costs and benefits included in the cost-effectiveness calculation.

Table 2: Demand Response Costs and Benefits

Costs	Benefits
• Program setup costs • Operation and maintenance costs • Equipment costs • Marking costs • Program incentives[2]	• Avoided generation capacity costs • Avoided capital costs related to the deferral or avoidance of capacity expansions on the transmission and distribution systems

These costs and benefits are projected over 20 years, based on each product's anticipated participation and associated demand reductions.

This assessment assumes that DR events can be called with perfect anticipation of peak demands. In implementing a DR program, utilities typically specify a maximum number of events per season that will be called. This gives participants an upper limit of what may be asked of them but also provides utilities with a number of events to call when forecasted demands are high. However, challenges still exist in deciding the dates and hours to call DR events, and any peak events occurring when DR events were not planned may result in reductions in the ultimate cost-effectiveness of a DR program.

[2] While program incentives are not included in the Total Resource Cost perspective for most demand-side resources, for DR programs some portion of the incentive is assumed to represent a DR program participant's burden or inconvenience in participating in a program. For example, in the residential sector, 25-35% of the incentives are included as a cost.

Results

This section documents the results of the DRPA. It begins with the winter and summer achievable potential, followed by a discussion of the costs and economic potential.

Winter Achievable Potential

The estimated achievable winter DR potential is summarized by sector and year in Figure 6. The total 20-year winter potential is 106 MW, which is approximately 9% of Cowlitz PUD's estimated 2045 winter peak demand.

Most of the potential is in the industrial sector, which totals approximately 89 MW in the last year of the study period. The remaining potential in the residential and commercial sectors is approximately 17 MW in total, most of which is in the residential sector.

The high industrial potential is driven by Cowlitz PUD's large industrial load. Residential loads are highly correlated with winter peak demand periods, leading to potential that is in line with their share of Cowlitz PUD's overall loads. Conversely, commercial loads tend to peak in the summer, and many commercial facilities have less ability to reduce or shift their loads. As a result, commercial participation in demand response programs is limited.

Figure 6: Annual Achievable Winter DR Potential by Sector

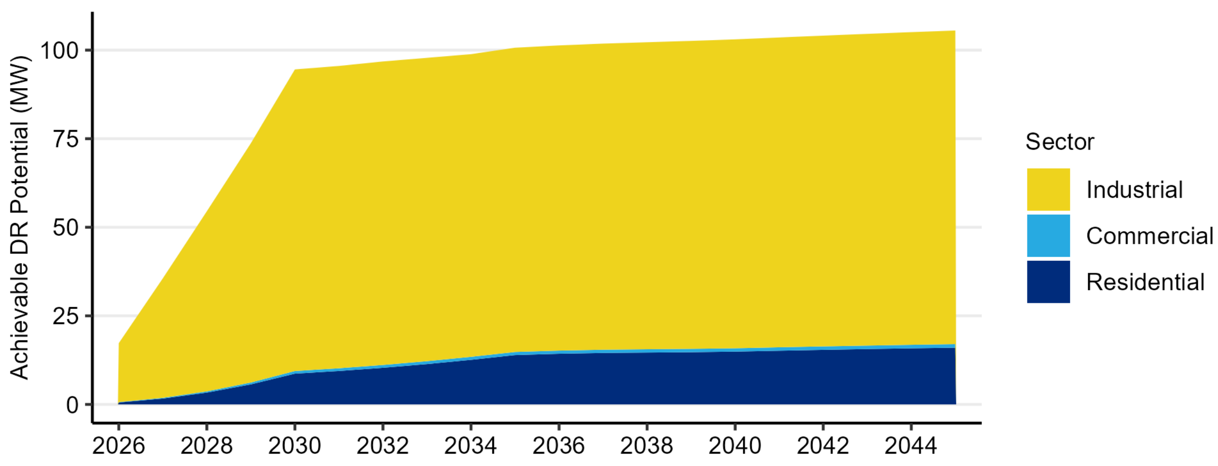


Figure 7 shows how this potential breaks down by end use. The potential is largely in the "all" end use, with the remaining potential spread across the categories of space heating, water heating, and EV charging. The "all" end use includes pricing products and commercial and industrial curtailment strategies whose impacts are not specific to a single end use.

The changes in potential for each end use reflect the changes in the saturation of eligible equipment. For example, the growth in potential from EV charging is driven by the forecasted adoption of electric vehicles. The DR potential in water heating is impacted by the adoption of heat pump water heaters, which provide energy savings throughout the year but less callable load reductions for demand response. Growth in the "all" end use is based on the assumed rollout of curtailment and pricing programs. The flattening of this potential after 2030 indicates that the programs are fully rolled out.

In addition, unlike other end uses, the potential of the programs in this end use are not impacted by future changes in equipment adoption.

Figure 7: Annual Achievable Winter DR Potential by End Use

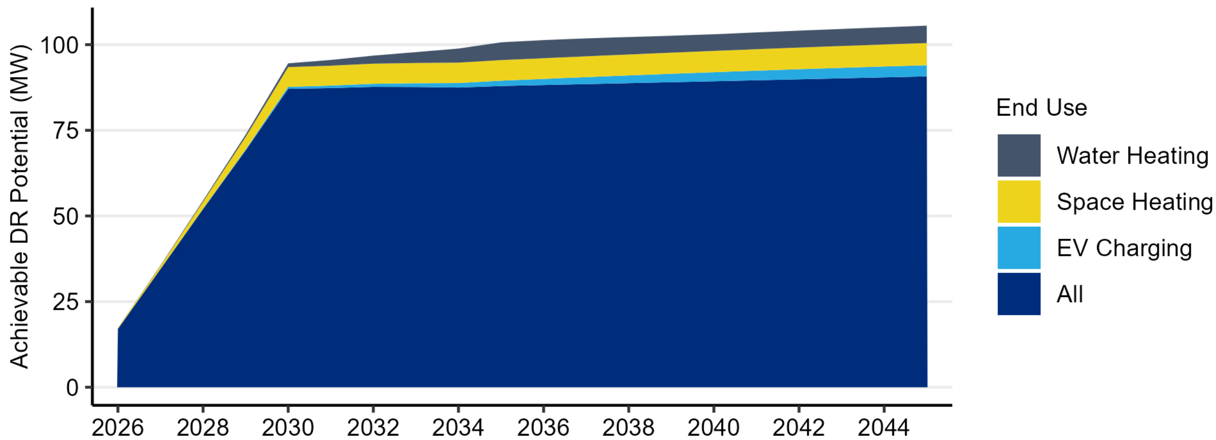
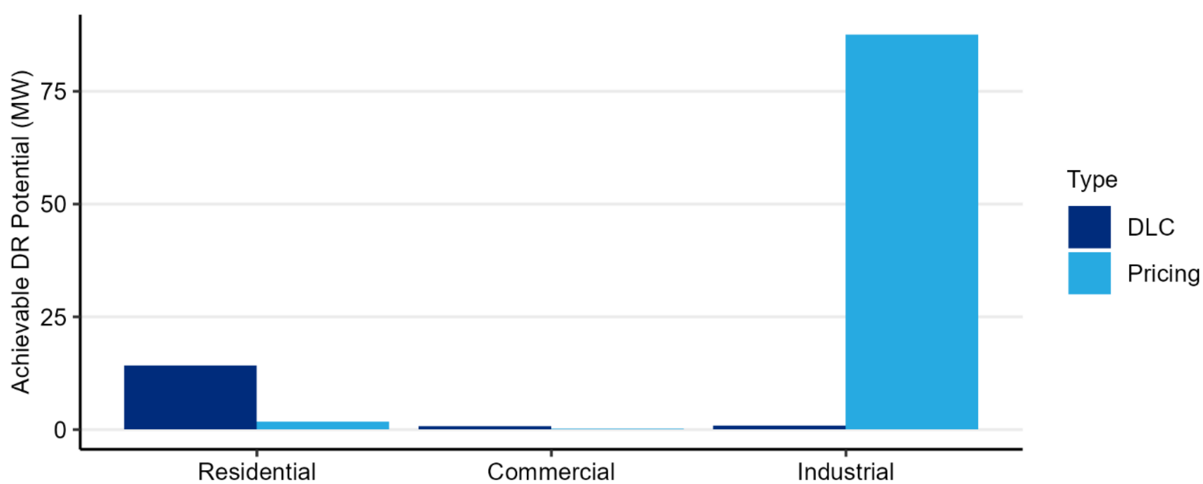


Figure 8 shows how this potential breaks down across the various product types within each sector. By far, most of the potential is from industrial pricing products, with smaller amounts coming from the residential DLC products.

Figure 8: Achievable Winter DR Potential by Sector and Type



Summer Achievable Potential

In the summer, Cowlitz PUD has 113 MW of achievable demand response available by 2045, which is 11% of Cowlitz PUD's estimated 2045 summer peak demand. The distribution of summer potential across sectors is similar to that of winter, with the industrial potential making up more than 80% of the total. The commercial potential is slightly higher in summer relative to the winter due to higher coincidence of commercial sector loads with peak summer demands. Figure 9 shows the annual achievable summer potential by sector.

Figure 9: Annual Achievable Summer DR Potential by Sector

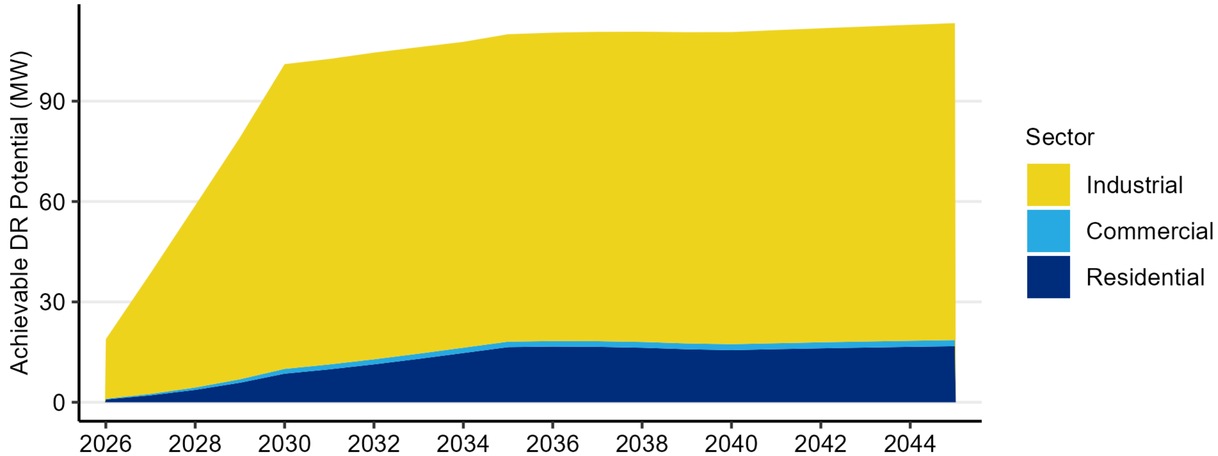


Figure 10 shows the breakdown of summer DR potential by end use. The distribution is similar to that of the winter season.

Figure 10: Annual Achievable Summer DR Potential by End Use

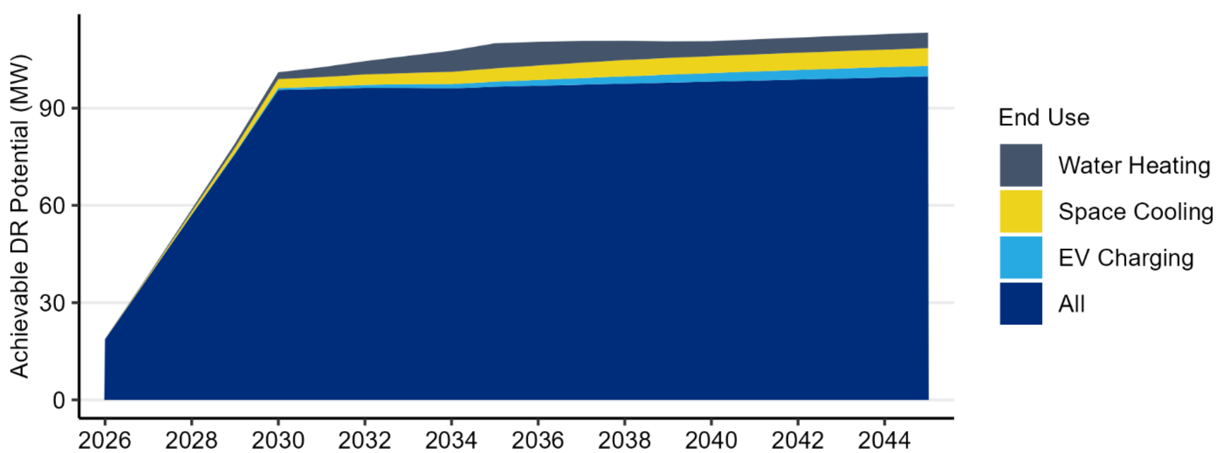
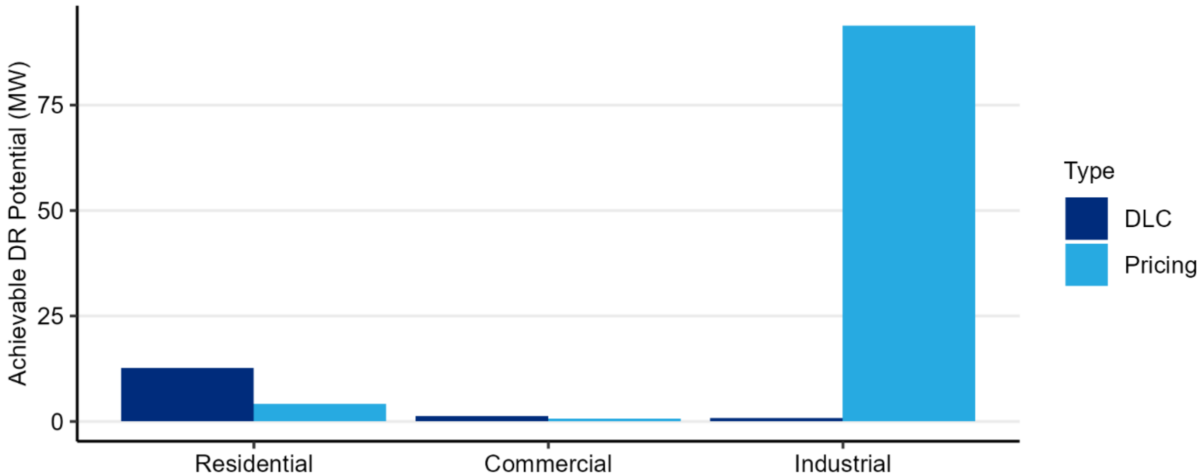


Figure 11 shows how the summer potential splits across sectors and program types.

Figure 11: Achievable Summer DR Potential by Sector and Type



Costs

A demand response supply curve details the quantity of DR potential available at different cost thresholds. The supply curves for winter and summer DR are shown in Figure 12 and Figure 13, respectively. The products are ranked by levelized cost ($/kW-year), with the lowest cost product at the bottom. Moving up the supply curve, the incremental DR potential for each product is shown in dark blue and the cumulative potential from all previous products shown in light blue.

The horizontal axis reflects the 20-year DR capacity and the value at the end of each bar is the levelized cost of each product. As discussed above, the levelized cost calculations for winter products include credits for deferred distribution and transmission system capacity costs.

Figure 12 shows that industrial real time pricing, residential smart thermostats, EV charging, and grid-ready heat pump water heater products have the highest amounts of potential. There are more than 87 MW available through industrial real time pricing and another 11.4 MW available in total through the residential smart thermostats, EV charging, and grid-ready HPWH products. In addition to having the highest potential, industrial real time pricing also has the lowest cost, at -$11/kW-year. The negative cost is due to the capacity credits discussed above.

Figure 12: Winter DR Supply Curve (MW and $/kW-year)

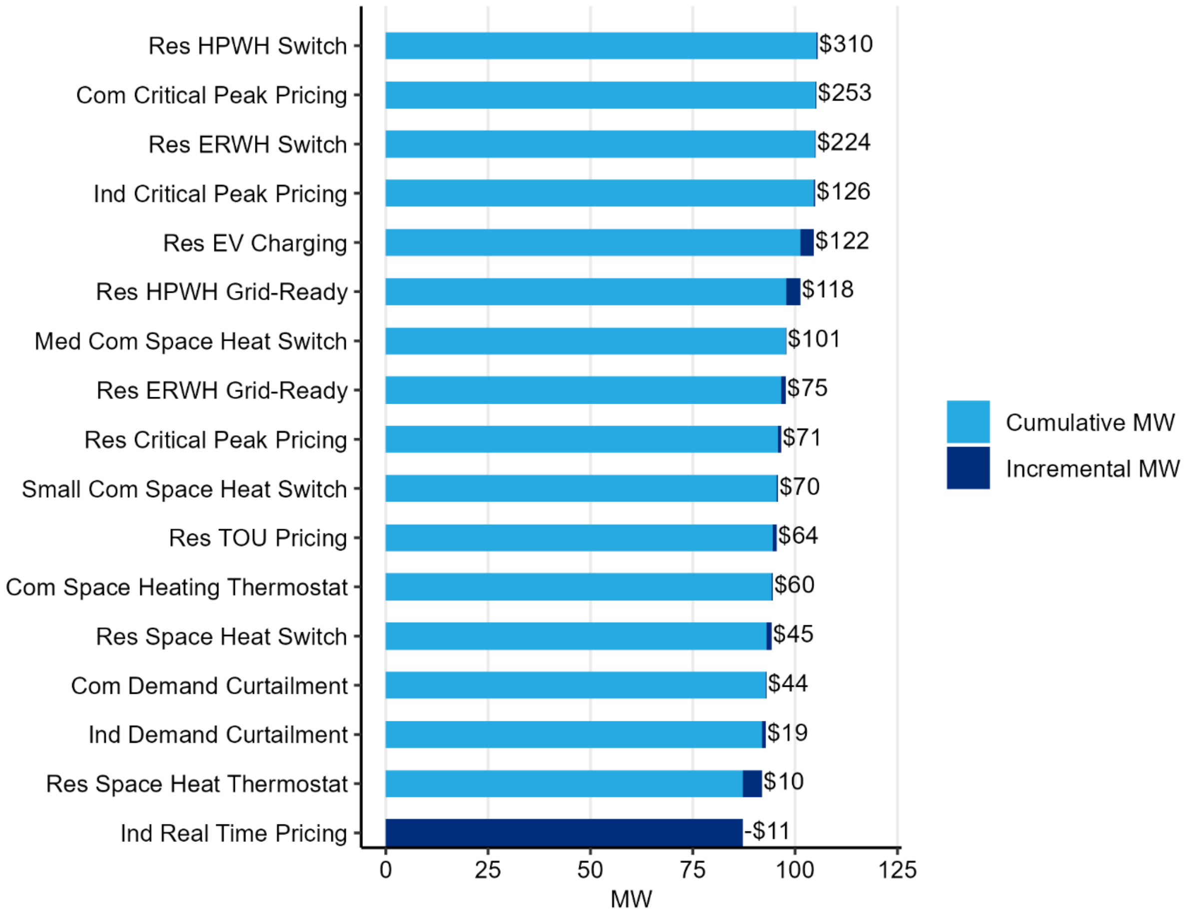
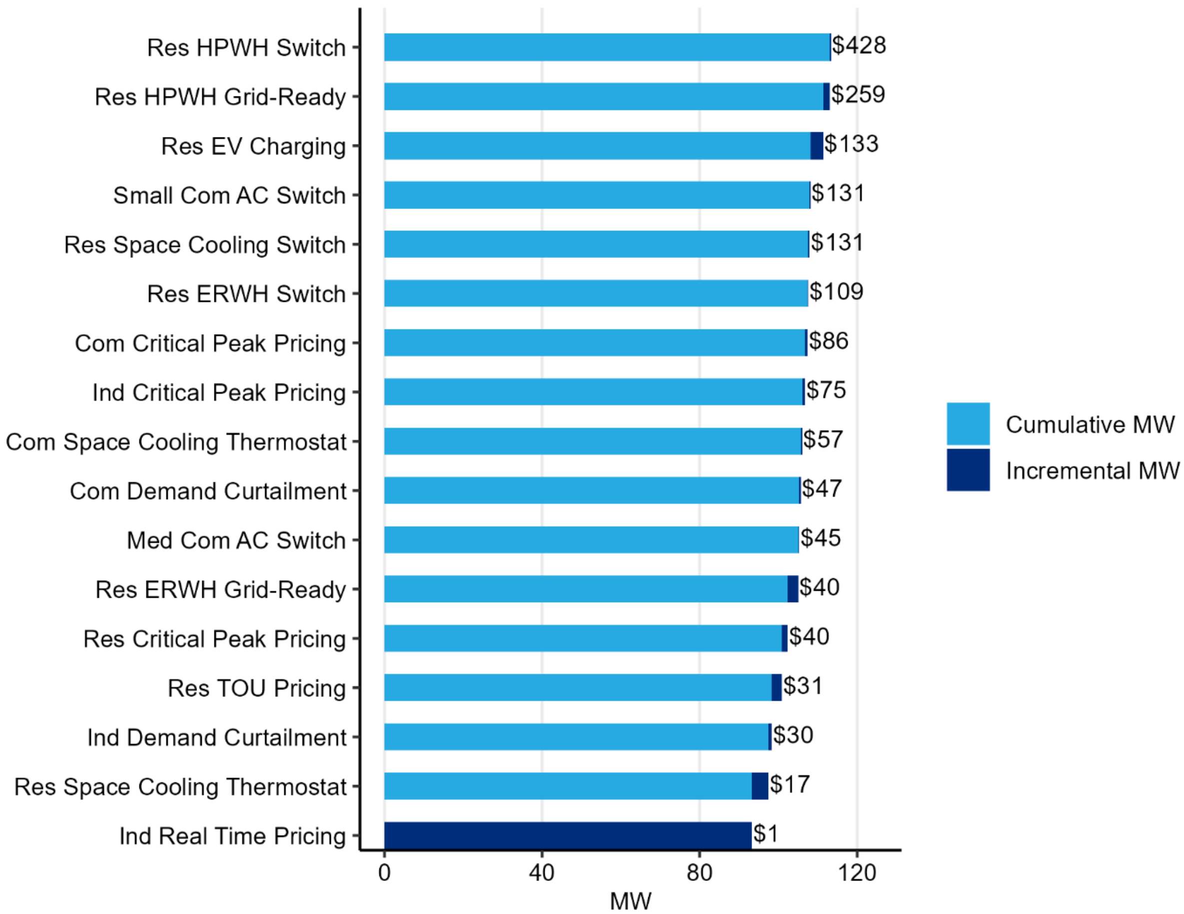


Figure 13 shows the supply curve for summer capacity. Like the winter, most of the low-cost potential is in the industrial real time pricing product, followed by residential thermostats.

Figure 13: Summer DR Supply Curve (MW and $/kW-year)



Cost Effectiveness

Table 3 shows the result of the cost-effectiveness screening for each winter DR product. Products are ranked in descending order by benefit-cost ratio. The 20-year DR potential for each product is also shown. Industrial real time pricing, residential smart thermostat DR, and industrial demand curtailment were the only products with a cost-effectiveness ratio greater than 1.0. The remaining products fell below the cost-effectiveness threshold of 1.0.

The current saturations of grid-enabled heat pump water heaters and electric vehicles are low, leaving few participants to cover the fixed costs of starting a program in the near term. However, since growth is expected in both areas, these programs may be more cost-effective in the future.

Table 3: Winter Benefit-Cost Ratio Results by Product

Product Name	Benefit-Cost Ratio	Cumulative MW
Ind Real Time Pricing	59.9	87.3
Res Space Heat Thermostat	1.6	4.7
Ind Demand Curtailment	1.2	0.9
Com Demand Curtailment	0.6	0.2
Res Space Heat Switch	0.6	1.2
Res ERWH Grid-Ready	0.6	1.2
Com Space Heating Thermostat	0.5	0.2
Res TOU Pricing	0.5	1.0
Small Com Space Heating Switch	0.4	0.2
Res Critical Peak Pricing	0.4	0.7
Res HPWH Grid-Ready	0.4	3.4
Medium Com Space Heating Switch	0.3	0.1
Res EV Charging	0.3	3.3
Ind Critical Peak Pricing	0.3	0.4
Res ERWH Switch	0.2	0.1
Res HPWH Switch	0.2	0.3
Com Critical Peak Pricing	0.1	0.2

In the summer season, industrial real time pricing was the only cost-effective product. This can be seen in Table 4. Residential smart thermostats were just below the threshold for cost effectiveness with a benefit-cost ratio of 0.9.

Table 4: Summer Benefit-Cost Ratio Results by Product

Product Name	Benefit-Cost Ratio	Cumulative MW
Ind Real Time Pricing	26.5	93.2
Res Space Cooling Thermostat	0.9	4.3
Res ERWH Grid-Ready	0.7	2.6
Ind Demand Curtailment	0.5	0.8
Res TOU Pricing	0.5	2.6
Res Critical Peak Pricing	0.4	1.5
Medium Com Space Cooling Switch	0.3	0.3
Com Demand Curtailment	0.3	0.3
Res ERWH Switch	0.3	0.2
Com Space Cooling Thermostat	0.3	0.3
Ind Critical Peak Pricing	0.2	0.7
Com Critical Peak Pricing	0.2	0.6
Res Space Cooling Switch	0.1	0.3
Small Com Space Cooling Switch	0.1	0.2
Res HPWH Grid-Ready	0.1	1.7
Res EV Charging	0.1	3.3
Res HPWH Switch	0.1	0.2

Summary

This report summarizes the results of the 2025 DRPA conducted for Cowlitz PUD. The assessment included many of the products and used the same calculation methodology as the Council in the 2021 Power Plan. The project team customized the products and modified other assumptions to better reflect Cowlitz PUD's service territory and aligned inputs with the projections of Cowlitz PUD's 2025 CPA. It included products applicable to the residential, commercial, and industrial sectors that use a variety of DLC, demand curtailment, and price-based strategies to target multiple end uses.

Overall, the assessment quantified 106 MW of achievable winter DR capacity and 113 MW of achievable summer DR capacity. Most of the achievable DR potential identified is in the industrial sector, which is consistent with the makeup of Cowlitz PUD's loads. Industrial real time pricing, which was modeled from some of Cowlitz PUD's existing contractual arrangements, is cost-effective across both seasons and has already been implemented by Cowlitz PUD. Residential smart thermostats were identified as cost-effective in the winter.

Since the costs of implementing a demand response program can be highly utility specific, the project team recommends that Cowlitz PUD further refine the costs of implementing a smart thermostat demand response program and re-evaluate the cost effectiveness before setting a target.

Note that recent legislative changes have amended Washington's Energy Independence Act, allowing utilities to count demand response towards the Act's renewable energy requirements. While this change was not included as part of this assessment, it may provide additional value for demand response, adding to the cost effectiveness of the products considered in this assessment.

Appendix I: DR Product List

DR Product Info					
Sector	**End Use**	**Product**	**Type**	**Impact**	**Methodology**
Residential	EV Charging	Res EV Charging	DLC	Winter	Bottom Up
Residential	EV Charging	Res EV Charging	DLC	Summer	Bottom Up
Residential	Water Heating	Res ERWH Switch	DLC	Winter	Bottom Up
Residential	Water Heating	Res ERWH Switch	DLC	Summer	Bottom Up
Residential	Water Heating	Res ERWH Grid-Ready	DLC	Winter	Bottom Up
Residential	Water Heating	Res ERWH Grid-Ready	DLC	Summer	Bottom Up
Residential	Water Heating	Res HPWH Switch	DLC	Winter	Bottom Up
Residential	Water Heating	Res HPWH Switch	DLC	Summer	Bottom Up
Residential	Water Heating	Res HPWH Grid-Ready	DLC	Winter	Bottom Up
Residential	Water Heating	Res HPWH Grid-Ready	DLC	Summer	Bottom Up
Residential	Space Heating	Res Space Heat Switch	DLC	Winter	Bottom Up
Residential	Space Cooling	Res Space Cooling Switch	DLC	Summer	Bottom Up
Residential	Space Heating	Res Space Heat Thermostat	DLC	Winter	Bottom Up
Residential	Space Cooling	Res Space Cooling Thermostat	DLC	Summer	Bottom Up
Commercial	Space Heating	Small Com Space Heating Switch	DLC	Winter	Bottom Up
Commercial	Space Cooling	Small Com Space Cooling Switch	DLC	Summer	Bottom Up
Commercial	Space Heating	Com Space Heating Thermostat	DLC	Winter	Bottom Up
Commercial	Space Cooling	Com Space Cooling Thermostat	DLC	Summer	Bottom Up
Commercial	Space Heating	Medium Com Space Heating Switch	DLC	Winter	Bottom Up
Commercial	Space Cooling	Medium Com Space Cooling Switch	DLC	Summer	Bottom Up
Commercial	All	Com Demand Curtailment	DLC	Winter	Top Down
Commercial	All	Com Demand Curtailment	DLC	Summer	Top Down
Industrial	All	Ind Demand Curtailment	DLC	Winter	Top Down
Industrial	All	Ind Demand Curtailment	DLC	Summer	Top Down
Residential	All	Res TOU Pricing	Pricing	Winter	Top Down
Residential	All	Res TOU Pricing	Pricing	Summer	Top Down
Residential	All	Res Critical Peak Pricing	Pricing	Winter	Top Down
Residential	All	Res Critical Peak Pricing	Pricing	Summer	Top Down
Commercial	All	Com Critical Peak Pricing	Pricing	Winter	Top Down
Commercial	All	Com Critical Peak Pricing	Pricing	Summer	Top Down
Industrial	All	Ind Critical Peak Pricing	Pricing	Winter	Top Down
Industrial	All	Ind Critical Peak Pricing	Pricing	Summer	Top Down
Industrial	All	Ind Real Time Pricing	Pricing	Winter	Top Down
Industrial	All	Ind Real Time Pricing	Pricing	Summer	Top Down

Appendix II: Acronyms

AC	Air Conditioning
AMI	Advanced Metering Infrastructure
aMW	Average Megawatt
CEIP	Clean Energy Implementation Plan
CETA	Clean Energy Transformation Act
CPA	Conservation Potential Assessment
CPP	Critical Peak Pricing
CVR	Conservation Voltage Reduction
DLC	Direct Load Control
DR	Demand Response
DRPA	Demand Response Potential Assessment
ERWH	Electric Resistance Water Heater
EV	Electric Vehicle
HPWH	Heat Pump Water Heater
HVAC	Heating, Ventilation, and Air Conditioning
kW	Kilowatt
MW	Megawatt
TOU	Time of Use
TRC	Total Resource Cost

Appendix III: Detailed Results

Product	End Use	Levelized Cost ($/kW-year)	Benefit-Cost Ratio	4-Year Achievable Potential (MW)	10-Year Achievable Potential (MW)	20-Year Achievable Potential (MW)
Res EV Charging - Winter	EV Charging	$122	0.27	0.3	1.6	3.3
Res EV Charging - Summer	EV Charging	$133	0.11	0.3	1.6	3.3
Res ERWH Switch - Winter	Water Heating	$224	0.21	0.3	0.4	0.1
Res ERWH Switch - Summer	Water Heating	$109	0.26	0.7	1.0	0.2
Res ERWH Grid-Ready - Winter	Water Heating	$75	0.56	0.3	2.6	1.2
Res ERWH Grid-Ready - Summer	Water Heating	$40	0.72	0.6	5.6	2.6
Res HPWH Switch - Winter	Water Heating	$310	0.15	0.1	0.3	0.3
Res HPWH Switch - Summer	Water Heating	$428	0.07	0.0	0.2	0.2
Res HPWH Grid-Ready - Winter	Water Heating	$118	0.37	0.0	1.8	3.4
Res HPWH Grid-Ready - Summer	Water Heating	$259	0.11	0.0	0.9	1.7
Res Space Heat Switch - West	Space Heating	$45	0.63	2.9	2.6	1.2
Res Space Cooling Switch - West	Space Cooling	$131	0.11	0.8	0.7	0.3
Res Space Heat Thermostat - West	Space Heating	$10	1.64	0.6	2.9	4.7
Res Space Cooling Thermostat - West	Space Cooling	$17	0.88	0.6	2.7	4.3
Com Space Heating Switch - Small/West	Space Heating	$70	0.43	0.1	0.2	0.2
Com Space Cooling Switch - Small/West	Space Cooling	$131	0.11	0.1	0.2	0.2
Com Space Heating Thermostat - West	Space Heating	$60	0.50	0.0	0.2	0.2
Com Space Cooling Thermostat - West	Space Cooling	$57	0.26	0.0	0.2	0.3
Com Space Heating Switch - Medium/West	Space Heating	$101	0.31	0.1	0.1	0.1
Com Space Cooling Switch - Medium/West	Space Cooling	$45	0.33	0.2	0.3	0.3
Com Demand Curtailment - Winter	All	$44	0.64	0.2	0.2	0.2
Com Demand Curtailment - Summer	All	$47	0.31	0.2	0.3	0.3
Ind Demand Curtailment - Winter	All	$19	1.19	0.7	0.9	0.9
Ind Demand Curtailment - Summer	All	$30	0.48	0.6	0.8	0.8
Res TOU Pricing - Winter	All	$64	0.47	0.7	1.0	1.0
Res TOU Pricing - Summer	All	$31	0.48	1.8	2.4	2.6
Res Critical Peak Pricing - Winter	All	$71	0.43	0.5	0.7	0.7
Res Critical Peak Pricing - Summer	All	$40	0.37	1.1	1.4	1.5
Com Critical Peak Pricing - Winter	All	$253	0.13	0.1	0.2	0.2
Com Critical Peak Pricing - Summer	All	$86	0.17	0.5	0.6	0.6
Ind Critical Peak Pricing - Winter	All	$126	0.26	0.3	0.4	0.4
Ind Critical Peak Pricing - Summer	All	$75	0.20	0.5	0.7	0.7
Ind Real Time Pricing - Winter	All	-$11	59.89	66.6	84.7	87.3
Ind Real Time Pricing - Summer	All	$1	26.47	71.1	90.4	93.2