

# Transportation Customer Energy Efficiency

Stakeholder Meeting  
August 28, 2023



# Forward Looking Statement



This and other presentations made by NW Natural from time to time, may contain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects” and similar references to future periods. Examples of forward-looking statements include, but are not limited to, statements regarding the following: including regional third-party projects, storage, pipeline and other infrastructure investments, commodity costs, competitive advantage, customer service, customer and business growth, conversion potential, multifamily development, business risk, efficiency of business operations, regulatory recovery, business development and new business initiatives, environmental remediation recoveries, gas storage markets and business opportunities, gas storage development, costs, timing or returns related thereto, financial positions and performance, economic and housing market trends and performance shareholder return and value, capital expenditures, liquidity, strategic goals, greenhouse gas emissions, carbon savings, renewable natural gas, hydrogen, gas reserves and investments and regulatory recoveries related thereto, hedge efficacy, cash flows and adequacy thereof, return on equity, capital structure, return on invested capital, revenues and earnings and timing thereof, margins, operations and maintenance expense, dividends, credit ratings and profile, the regulatory environment, effects of regulatory disallowance, timing or effects of future regulatory proceedings or future regulatory approvals, regulatory prudence reviews, effects of regulatory mechanisms, including, but not limited to, SRRM and the Company’s infrastructure investments, effects of legislation, including but not limited to bonus depreciation and PHMSA regulations, and other statements that are other than statements of historical facts.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements, so we caution you against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements are discussed by reference to the factors described in Part I, Item 1A “Risk Factors,” and Part II, Item 7 and Item 7A “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Quantitative and Qualitative Disclosure about Market Risk” in the Company’s most recent Annual Report on Form 10-K, and in Part I, Items 2 and 3 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Quantitative and Qualitative Disclosures About Market Risk”, and Part II, Item 1A, “Risk Factors”, in the Company’s quarterly reports filed thereafter.

All forward-looking statements made in this presentation and all subsequent forward-looking statements, whether written or oral and whether made by or on behalf of the Company, are expressly qualified by these cautionary statements. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

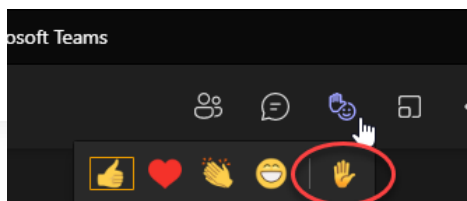
# Procedures for Participation

- Please mute your microphones during the presentation, except when commenting and/or asking a question
- All participants are muted upon entry into the meeting

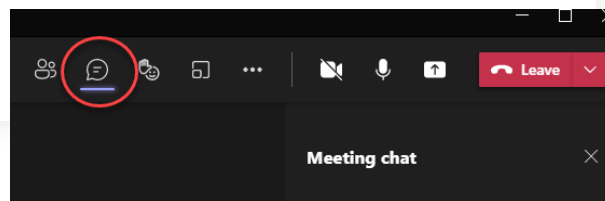
- Cameras are optional and up to each participant to use
- All participant cameras are set to off upon entry into the meeting

- Add a comment or question at any time using the “raised hand” or the chat box

*Raised hand function is found in the reactions*

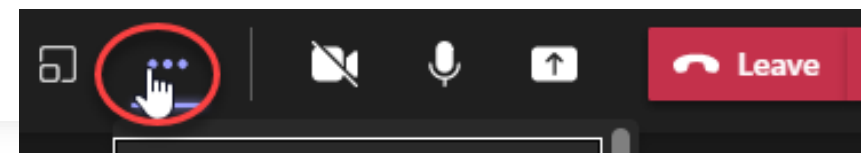


*Chat box will open when you click on the conversation bubble*



- Microsoft Teams has a live caption function for any participant to use

*Click the ellipses, then chose “turn on live captions”*



# Today's Agenda



Welcome - Recap

Review Feedback

Program Structure Proposal

Updated Timeline

# 2 Minutes for Safety: Pedestrian Safety



## Tips for Drivers:

- Never drive impaired
- Follow the speed limit
- Look out for pedestrians & cyclists, everywhere & at all times
- Use extra caution in hard-to-see conditions & when backing
- Slow down when turning or entering a crosswalk



## Tips for Pedestrians:

- Be aware of your surroundings
- Obey signs and signals
- Watch for cars turning, entering, exiting, &/or backing
- Walk on sidewalks when available
- Use extra caution when walking without a sidewalk & when crossing



# Previous Meeting Review



- Background and context
- Review of estimated potential
- Desired programs and timeline
- Cost-effectives/avoided cost discussion

# Addressing Historical Barriers



Staff Recommendation 24: Staff, the Energy Trust of Oregon, and other interested entities shall present information in a public meeting on the status of efforts to create a transportation customer efficiency program, including any barriers the Commission may assist in overcoming. (Order No. 23-281 at 18)

- Data Sharing with Energy Trust – Working on a waiver to allow sharing of usage data while maintaining customer protections
- New Compliance Framework – NW Natural is required to pursue the least cost resource for decarbonization which can be energy efficiency for all customers.

# OPUC Feedback Summary



- Requested a more detailed timeline
- Questions about services and at what cost
- More details about Energy Trust involvement
- Seeking to understand risk of undervaluing avoided costs, and understanding potential if commodity costs are removed
- Advised following pilot to program guidance



# Transport Customer Survey

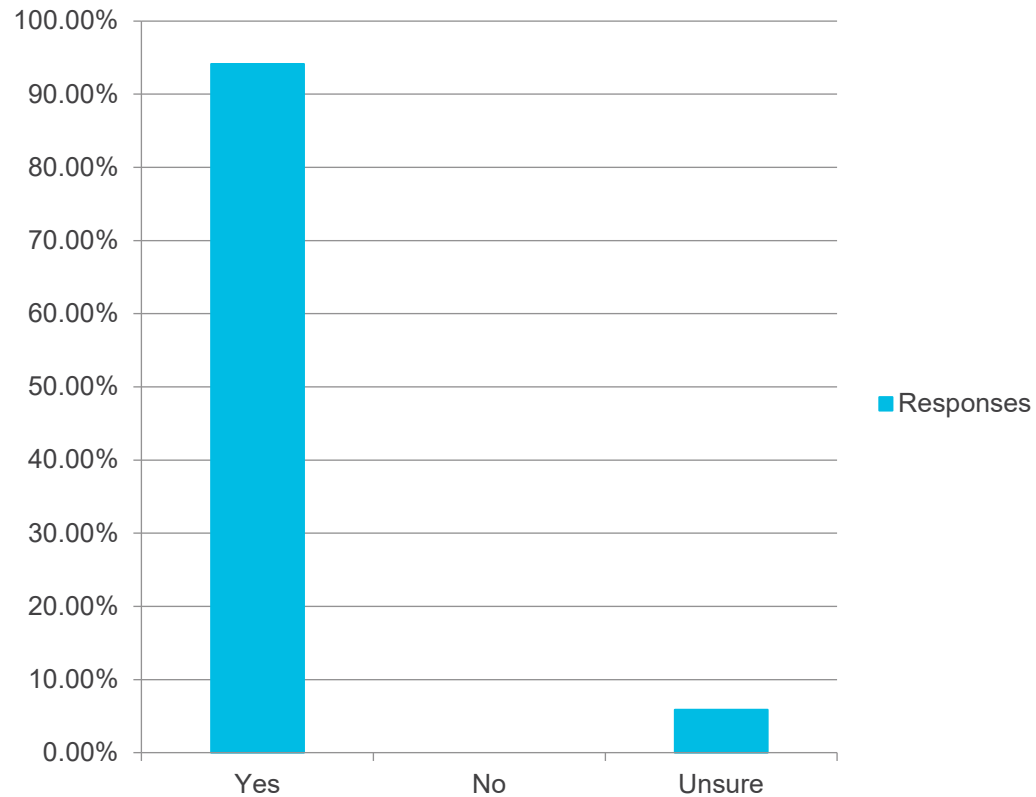
- Survey was sent to transport customers via email
- Questions asked about current conservation efforts and about their priorities
- We received 17 responses to the survey



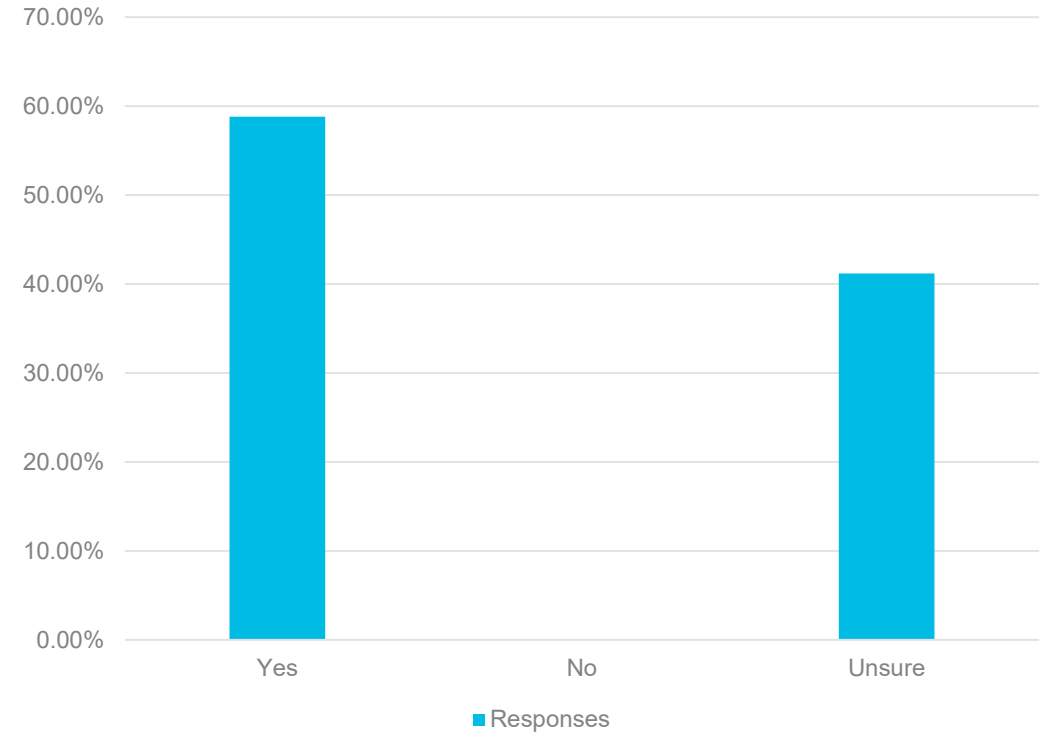
# Survey Responses



Does your company have internal greenhouse gas reduction goals?



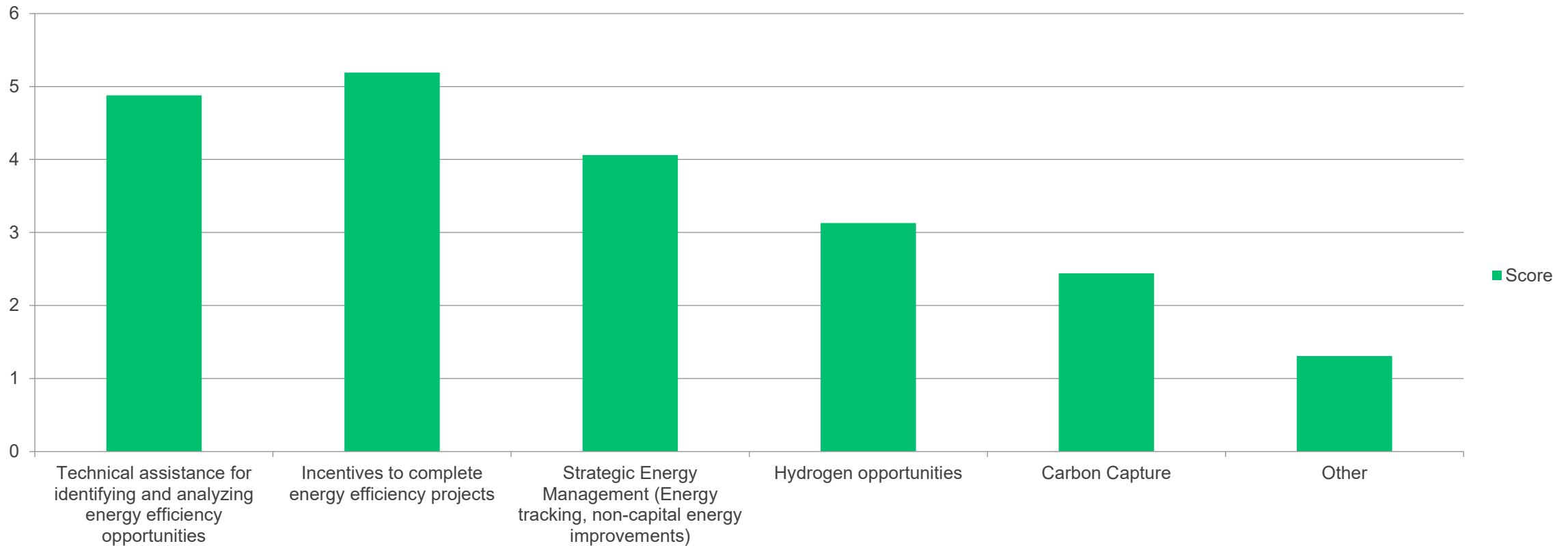
Does your company have plans for an energy efficiency upgrade in the next 3 years?



# Survey Responses



Please rank the program offerings by what would be most helpful for your company site.



# Open Transport Customer Feedback



This is very exciting, having access to an incentive program would provide a huge boost in getting gas efficiency projects approved in our organization.

Good to see you are working with transportation customers on efficiency opportunities.

We are first and foremost focused on areas of efficiency first.

Have the ability to access the ETO grants even if we buy natural gas from a third party

# Proposed Program Structure



- NW Natural Offerings
  - Custom energy studies to transport customers with 5-year average annual usage over 1 million therms (Approx. 44 customers)
  - NW Natural studies will look at energy efficiency opportunities alongside, hydrogen, and carbon capture projects.
  - Planning on issuing an RFP for an implementer to work with NW Natural staff to conduct audits.
- Energy Trust Offerings
  - Will provide their custom program to transport customers with usage under 1 million therms
  - Energy Trust SEM and Standard Track offerings will be available to all customers.

ETO Slides Begin



# Energy Trust Services for NWN Transport Customers

August 28, 2023



## Energy Trust Services

- Serve industrial customers with existing PMC delivery model\*
- Customers eligible for same program offerings and incentive rates
- Performance reported out to NWN and OPUC

\*Per NWN proposal, Energy Trust will only provide custom incentives to customers with less than 1M therm annual usage



# Production Efficiency Program Offerings

## Standard Track

- Simpler equipment measures installed through Energy Trust trade allies/vendors

## Custom Track

- Capital upgrades and operations and maintenance improvements
- Includes technical studies and support

## Strategic Energy Management

- First Year SEM and Continuous SEM



<b>Five-Year Projection</b>						
Northwest Natural Transport						
8/28/2023						
	<b>2024*</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>5 Year Total</b>
Total Savings	75,000	545,596	681,995	818,394	818,394	2,939,377
Incremental Carbon Reduction (metric tons CO2)	398	2,892	3,615	4,337	4,337	15,579
Total Budget	\$ 348,000	\$ 1,703,376	\$ 2,132,746	\$ 2,600,049	\$ 2,623,422	\$ 9,407,594
Measure life in years	11.40	11.40	11.40	11.40	11.40	11.40
Cost per CO2 ton	\$ 76.80	\$ 51.67	\$ 51.76	\$ 52.58	\$ 53.05	\$ 52.97
<b>Notes</b>						
*Assumes January 1, 2024 launch - May not be able to realize 2024 SEM savings if launch is delayed.						

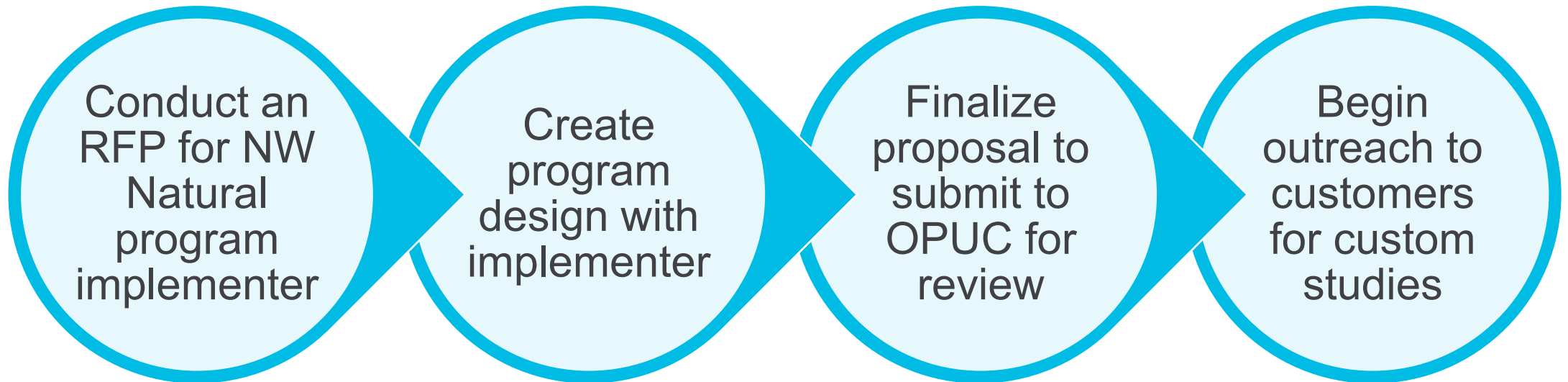
ETO Slides End

# Next Steps with Energy Trust



- NW Natural is currently working on data sharing waiver
- Energy Trust has an SEM cohort starting in October with NW Natural transport customers included. Working on how we can include them in the proposed program.
- Typical contracting may take 5-7 months but looking how we can support customers sooner

# NW Natural Proposed Process





# NW Natural – First Year Program

- Primary focus is conducting EE/decarbonization audits to evaluate specific opportunities
- Program budgets will be dependent on chosen cost-effectiveness metrics and incentive levels/caps
- First year audit goal: 5 sites

# Program Funding



- All programs related to transportation customer energy efficiency are considered carbon compliance mechanisms.
- Program costs will go into a deferral account and a tariff will be created outlining program recovery once programs are established.

# Updated Program Timelines



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September





# Questions/Feedback

Strategic Planning | Integrated Resource Planning Team  
[irp@nwnatural.com](mailto:irp@nwnatural.com)



# NW Natural OR Transport UPDATE



Date: August 28<sup>th</sup>, 2023



## Results Caveats

In August 2022, AEG provided estimated energy efficiency results for Oregon Transport Customers.

The following considerations should be acknowledged when assessing the results:

- The potential represents expected levels calculated using average consumption across customers and equipment
- Actual energy impacts may vary widely contingent on participation of customers in potential programs and their specific characteristics
- This study was based on best available data from NW Natural and secondary source data, foregoing on-site assessments of transportation customer equipment efficiency or practices
- AEG conducted an estimation of achievable economic potential, including TRC and UCT perspectives
- All results were reviewed between AEG, NW Natural and Energy Trust of Oregon and all findings were found reasonable given the above caveats
- The update in the following slides only impacts the “reference” case



# Reference Case Scenario

AEG developed three potential scenarios based of different assumptions regarding the rate at which potential could be acquired

**Reference Case** started with standard ramp rate assumptions from the Northwest Power and Conservation Council's 2021 Power Plan mapped to natural gas measures

Ramp rates were then moved to the next most aggressive ramp rate for all measures except strategic energy management (SEM), which was already at the highest ramp rate



# Previous Results

*Table includes avoided costs **with** commodity costs*

Scenario	2022	2023	2024	2026	2031	2040
<b>Baseline Load Projection Absent Future Savings (mTherms)</b>	357,025	357,418	355,616	350,191	340,047	323,605
<b>Cumulative Savings (mTherms)</b>						
TRC Achievable Economic Potential	1,531	2,883	4,155	6,721	13,424	18,166
UCT Achievable Economic Potential	1,537	2,894	4,170	6,746	13,480	18,287
Achievable Technical Potential	1,844	3,448	4,929	7,867	15,346	20,220
Technical Potential	2,291	4,298	6,158	9,842	19,167	25,882
<b>Cumulative Savings (% of Baseline)</b>						
TRC Achievable Economic Potential	0.43%	0.81%	1.17%	1.92%	3.95%	5.61%
UCT Achievable Economic Potential	0.43%	0.81%	1.17%	1.93%	3.96%	5.65%
Achievable Technical Potential	0.52%	0.96%	1.39%	2.25%	4.51%	6.25%
Technical Potential	0.64%	1.20%	1.73%	2.81%	5.64%	8.00%



# Updated Results

*Table includes avoided costs **without** commodity costs*

Scenario	2022	2023	2024	2026	2031	2040
<b>Baseline Load Projection Absent Future Savings (mTherms)</b>	357,025	357,418	355,616	350,191	340,047	323,605
<b>Cumulative Savings (mTherms)</b>						
TRC Achievable Economic Potential	1,033	2,054	3,063	5,099	10,240	16,905
UCT Achievable Economic Potential	1,055	2,103	3,139	5,234	10,552	17,406
Achievable Technical Potential	1,290	2,566	3,827	6,351	12,449	19,788
Technical Potential	1,652	3,294	4,917	8,161	15,979	25,587
<b>Cumulative Savings (% of Baseline)</b>						
TRC Achievable Economic Potential	0.29%	0.57%	0.86%	1.46%	3.01%	5.22%
UCT Achievable Economic Potential	0.30%	0.59%	0.88%	1.49%	3.10%	5.38%
Achievable Technical Potential	0.36%	0.72%	1.08%	1.81%	3.66%	6.11%
Technical Potential	0.46%	0.92%	1.38%	2.33%	4.70%	7.91%

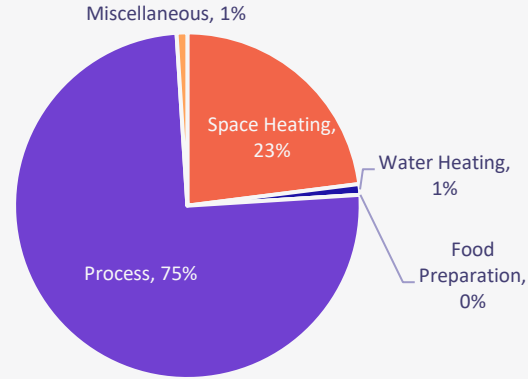


# Summary Comparison

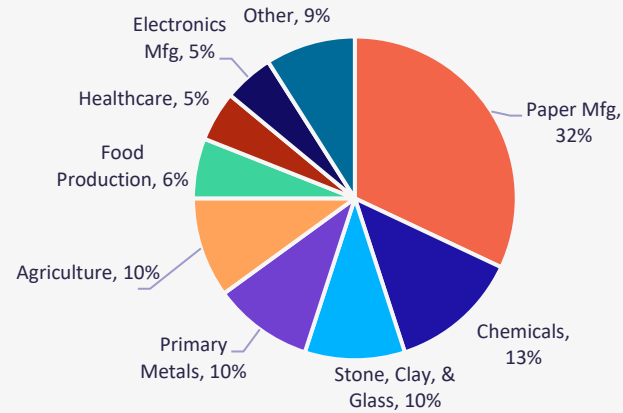
## Commodity Costs

TRC Achievable Economic Potential by End Use, 2040

### Included



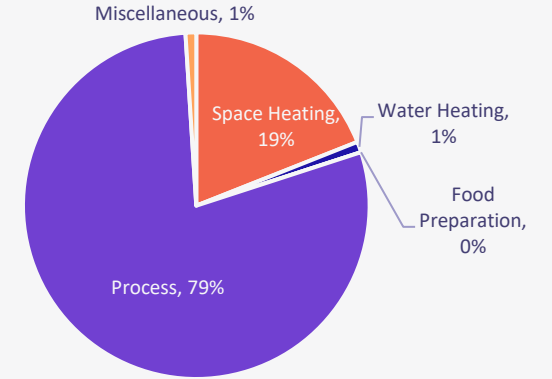
TRC Achievable Economic Potential by Market Segment, 2040



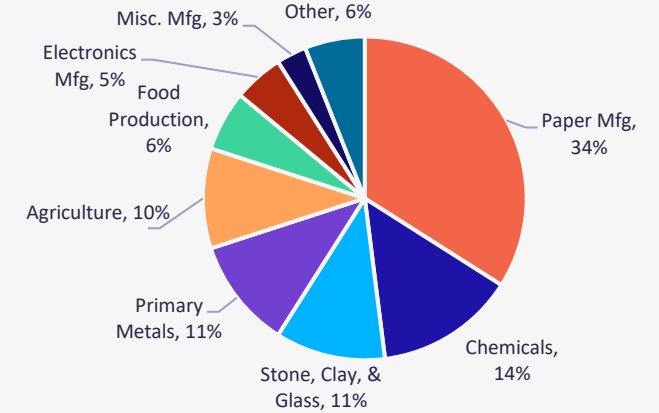
## Commodity Costs

TRC Achievable Economic Potential by End Use, 2040

### Excluded



TRC Achievable Economic Potential by Market Segment, 2040



Exclusion of Commodity Costs results in very minor changes to potential



# Results Summary

Overall, Cumulative Achievable Economic Potential for TRC and UCT is minimal when excluding commodity costs

For **2040**, TRC is reduced by 6.9% and UCT is reduced by 4.8%

