

Collated CAT Member Responses to Headlines and ‘Most Promising’

1. Plan and build livable communities in which options such as walking, biking and public transit are affordable, efficient and reliable alternatives to the single occupancy vehicle for many of the trips people now make in their daily lives.

(Original: Design communities and offer services and incentives that provide real alternatives to the single occupancy vehicle)

#	Strategy Title	# of Votes
T-4	Promote Compact and Transit-Oriented Development	8
T-1	Transit, Ridesharing, and Commuter Choice Programs	7
T-3	Transportation Pricing	7
RCI-3	Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors	7
T-2	State, Regional, and Local VMT Reduction Goals and Standards	4
T-0	<i>New Funding Mechanisms</i>	3
T-6	<i>Improvements to Freight Railroads and Intercity Passenger Railroads</i>	3
RCI-9	<i>Identify GHG Emissions Impacts and Measures to Avoid, Minimize, or Mitigate them for Projects Requiring Government Review, and in Designing Government Rules and Regulations</i>	1
T-5	<i>Quantification of GHG Impacts of Transportation Plans, Programs, and Projects</i>	0
T-8	<i>Local Transportation Financing Tools and Bicycle and Pedestrian Infrastructure Improvements</i>	0

‘Most Promising’ Strategies and Reasons:

T-4: Promote Compact and Transit-Oriented Development (8 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - Need to make communities walkable and transit-friendly to reduce reliance on single occupancy vehicles
 - This is foundational to reducing VMT growth and transportation-related GHGs; because it is a very long-term infrastructure choice that will be made either right or wrong as we grow, it determines our ability to meet long-term emission reduction needs.
 - Transportation is Washington’s largest contributor to GHGs. A comprehensive approach like this supports sustainable growth and supports reductions in vehicle miles traveled and has other potential benefits
 - This is fundamentally important to achieving the state’s existing “smart growth” goals, and the staff analysis shows significant GHG reduction potential here.
 - Compact and transit oriented development are key to making the necessary transit infrastructure work
 - The land use / transportation / climate connection = fewer car trips, shorter car trips, and much healthier local communities.
 - Significant GHG reduction potential
 - Determines our ability to meet long-term emission reduction needs
 - Feasibility
 - Appropriate governmental role
- **Notes:**
 - Depends on specific implementation mechanisms chosen and revenue source
 - TWG felt strategy requires transit and similar programs (T-1) in order to be effective
 - Costs and cost-effectiveness need to be determined

T-1: Transit, Ridesharing, and Commuter Choice Programs (7 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o A strong transit infrastructure is key to making the necessary development patterns work. This option has one of the greatest potentials of the Transportation options, with significant GHG savings.
 - o T-1 is necessary to provide climate-friendly transportation choices and more funding for them. We can not achieve our goals without reducing VMT – cleaner cars and fuels will not solve the problem.
 - o Transit system needs additional capacity and people will need assistance in figuring out how to drive less.
 - o An easier priority to move on quickly with significant benefits
 - o Significant and direct GHG reduction potential
 - o Important co-benefits
 - o Public transportation needs to be affordable, convenient and safe.
 - o Appropriate governmental role
- **Notes:**
 - o Costs and cost-effectiveness need to be determined
 - o Major investment in practical, affordable alternatives to SOVs is critical to the success of T2, T4, and GHG reduction from transportation generally. Not choosing this now because it's not a budget year, but I would in 2009.

T-3: Transportation Pricing (7 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Clear price signals encourage desired behavior
 - o Forces behavioral change necessary to make reductions in the near term, as well as changing mindsets about future transportation decisions
 - o Potential impact on GHG; market-based
 - o Real reductions will be driven by regulation in this sector. No major infrastructure investment required. Allows market to respond to regulatory limits
 - o Will promote efficiency, generate revenue for needed investments, and better align the price of driving with its true costs.
 - o Creates disincentive to drive: strong policy
 - o Creates revenue stream for transit and trip reduction
- **Notes:**
 - o Real reductions will be driven by regulation
 - o Very important tool for achieving other strategies listed here, notably T-0 and T-2. In fact, we consider this to be a subset of T-O. We identify T-0 as a Top 3 priority under this headline, and T-3 as a Top 3 priority under Headline #3.
 - o Potentially difficult to implement in Washington State

RCI-3: Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors (7 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Community planning is essential in future growth considering climate change. Targeting incentives to help mitigate GHGs in residential construction should kick-start consumer green building and should help meet clean energy jobs goal.
 - o Community planning and improved building designs are critical components to reduce electric use and the use fossil fuels for heating and transportation. Self-sustaining communities should encourage the concept of "living where you work" or "working where you live". Locally produced goods and services should be encouraged.
 - o One of the most important "themes" in my mind is land use issues and green building.
 - o There are things that can be promoted sooner in this option, such as green building, and work that can be phased in over time, such as community design and redesign.
 - o Good reductions, cost effective and can be implemented. (Very difficult to understand and trust quantification however)
 - o Most new developments are still designed as they were during the boom of suburban sprawl after WWII. While counties and municipalities are tasked with approving new developments, the state can show leadership by supporting new design paradigms.
 - o This seems to be a reasonable way, through permitting processes and perhaps incentives for LEED construction. There may be reasonable incentives for alternative fuel (i.e. solar) included.

T-2: State, Regional, and Local VMT Reduction Goals and Standards (4 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o This option has the highest GHG reductions of any option calculated.
 - o Institutionalizes reduction goals, makes them local, drives need to reduce to the local level.
 - o This is a solid, interim step toward good planning infrastructure. Choosing this over Tt-1 because it's not a budget year, but those investments are really what makes or breaks it.
- **Notes:**
 - o Costs and cost-effectiveness need to be determined
 - o T-2 is important, but we consider it to be part of T-4 below, which we've identified as a priority. One of the ways to promote compact, transit-oriented development is to establish VMT reduction goals at the state, regional and local levels. This is an important means to that important end.

Other Strategies

T-0: New Funding Mechanisms (3 votes)

- **Notes:**
 - o Without additional funding (new revenue, the more flexible use of existing revenue, or both), we can't implement the rest of these strategies. We need a thorough review of current state transportation funding policies and priorities, to ensure alignment with the Governor's Executive Order 07-02.
 - o Funding needs to be aimed at our highest priorities for transporting people and goods, not single occupant vehicles. I would include transportation pricing under this category rather than have it as a separate strategy.
 - o This is not an alternative to other strategies. It's an imperative for many of them
 - o There all ready is support for this particularly with rail through the Joint Transportation Committee and the study they are doing for the 2008 legislature.

T-6: Improvements to Freight Railroads and Intercity Passenger Railroads (3 votes)

- **Notes:**
 - o Particularly the freight aspects. Washington's freight transport options are horrific in many parts of the state. The desire to ramp up production of alternative fuels, etc. will likely increase freight traffic in-state.
 - o While the numbers would indicate this is not a cost-effective item, rail is a more efficient mover of freight than multiple semi tractor trailers and the current infrastructure is already significantly undersized.
 - o The movement of freight and people by rail is not only appropriate but necessary in the near future. It is more economical and environmentally friendly...as well as more efficient. It also keeps trucks off the roads.

RCI-9: Identify GHG Emissions Impacts and Measures to Avoid, Minimize, or Mitigate them for Projects Requiring Government Review, and in Designing Government Rules and Regulations (1 vote)

- **Notes:**
 - o In order to make long-term progress in reducing GHGs, this analysis needs to be considered in future development. If the authority already exists, it should be undertaken. Sends a strong signal across all sectors and the population that climate change mitigation is a priority.
 - o This is already required by law and that is why I don't rank it as one of the top 3 "new" strategies. It is very important, however.
 - o One of the lower known net present value costs for implementation for the various options identified in this category.
 - o Government rules and regulations should establish the overall goals (e.g. what needs to be accomplished). The methods to accomplish the goals should be left to the implementing entities (e.g. how to best accomplish the goals). In the short-term Initial investments are needed in R&D for CCS.

T-5: Quantification of GHG Impacts of Transportation Plans, Programs, and Projects (0 votes)

- **Notes:**

- This is extremely important, but is required by law anyway, so I didn't include it as a top priority new strategy here. It needs to happen, however.
- Picked as most promising under Headline 3.
- This is important, but we consider this to be part of the SEPA effort that is already going forward.

T-8: Local Transportation Financing Tools and Bicycle and Pedestrian Infrastructure Improvements (0 votes)

– **Notes:**

- I would include this as part of T-0 as part of new funding mechanisms rather than having it as a stand-alone strategy.
- This is very important because it promotes climate-friendly transportation choices and more funding for them; but we consider this to be a subset of T-0, above.

2. Ensure Washington has vehicles that get better mileage and use non-carbon or lower carbon intensity fuels developed sustainably from Washington's crops and forests (Original - Ensure Washington has cars and trucks that get better mileage and use low carbon fuels developed from Washington's crops and forests)

Alternative: Ensure Washington has vehicles that get better mileage and use non-carbon or lower carbon intensity fuels.

#	Strategy Title	# of Votes
T-11	Low Carbon Fuel Standard	12
T-7	Diesel Engine Emission Reductions and Fuel Efficiency Improvements	11
T-10	Actions to Accelerate and Integrate Plug-In Hybrid Electric Vehicle Use	6
AW-2	In-State Production of Biofuels and Biofuels feedstocks	6
F-7	Improved Commercialization of Advanced Lignocellulosic Processes	6
T-6	Improvements to Freight Railroads and Intercity Passenger Railroads	4
T-12	<i>Zero Emission Vehicle Standards and Low-GHG Refrigerants</i>	2
T-0	<i>New Funding Mechanisms</i>	1
AW-1	<i>Manure digestion for transportation fuel</i>	<i>Added - 1</i>

'Most Promising' Strategies

T-11: Low Carbon Fuel Standard (12 votes)

– **Some of the reasons given why strategy is 'most promising'**

- This is another promising technology
- Important strategy, but consider that significant technological innovation is needed to deliver goals. Lots of potential for unintended consequences if not designed correctly.
- Provides the most equitable policy framework for encouraging fuel switching.
- This will be very important as it likely will be integrated into the CA greenhouse gas standards for cars and will be part of the market based cap and trade mechanisms. It is very important that we not compromise air quality with this, however, so new fuel formulations will also have to be part of this.
- Potential impact on GHG; consistency with current actions; long-term benefits; beneficial impact on forest management
- Provide industry leading expertise and employment within Washington
- Will drive other fuel objectives, like AW 2 and F7, in a technology neutral way
- Substantial long-term GHG reduction benefits, while necessary to spur development of Washington's biofuels industry. (AW-2 and F-7)
- Analysis suggests big GHG reduction potential here. This approach would perhaps most rapidly accelerate the transition to cleaner fuels
- Establish regulatory limits. Allow market to respond to regulatory goals

- Promising, but challenging. The policies dealing with biofuels will tie into this strategy. But mandates coupled with a phased in approach would stimulate the biofuel industry as well as decrease carbon.

T-7: Diesel Engine Emission Reductions and Fuel Efficiency Improvements (11 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - Efficiency improvements are nearly always a winner. Substantial co-benefits as well.
 - Improving efficiency for our current fleet is one of the best and most cost-effective ways to reduce pollution.
 - Important co-benefits, black carbon reduction, and attractive economics in the efficiency.
 - Commercial and public transportation need greater efficiency. Seems like low hanging fruit for good long-term payoff.
 - Idling policies and procedures should be encouraged. Technology is available for light-duty vehicles and more R&D/equipment design is required for heavy-duty vehicles.
 - Diesel emissions are a large source of air and climate pollution in the urban areas of our state, and the staff analysis suggests significant GHG reduction potential here. We need to keep moving forward on diesel emissions reductions (especially Port-related emissions), by aggressively switching to cleaner fuels (biodiesel, electrification, etc.), more efficient engines, and operational efficiencies (e.g., anti-idling laws, policies and practices)
 - Reasonable cost effectiveness, real reductions, has near term implementation.
 - Fuel efficiency improvements (e.g. CAFÉ standards) can result in significant GHG reductions
 - This has the potential of reducing GHGs and air quality at the same time. Starting with public fleets and uses coupled with incentives for private grants, loans and/or credits would speed the process.

T-10: Actions to Accelerate and Integrate Plug-in Hybrid Electric Vehicle Use (6 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - We need transition technologies in place until the development patterns and transit infrastructure is sufficient to reduce VMT. Plug-in Electrics is one such technology
 - Low cost, good benefit
 - Best option for rapidly reducing the GHG emissions associated with transportation.
 - Important technology innovation that opens pathways for increased use of intermittent renewables, smart grid technology, and other innovations that integrate information technology with energy. This is a big economic opportunity for Washington businesses.
 - R&D is needed before proceeding. In particular, R&D is needed with respect to the concept of “re-powering” the grid with electric vehicles. R&D needs to be coordinated with regional and national efforts
- **Notes:**
 - Highly efficient electric vehicles are one of our best long term alternatives to petroleum, but low carbon fuel standard is more important in the short term.
 - This is important, but beginning to happen via existing programs. We believe this should be an “early action” for the State.

AW-2: In-State Production of Biofuel and Biofuels Feedstocks (6 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - Transportation is responsible for more than 40% of GHG emissions in Washington state. As such, a low carbon transportation fuel would be significant step in reducing the carbon footprint of the state.
 - This is necessary to address the “supply side” of the equation, to reap economic development/job creation opportunities in the rural parts of the state, and to keep more money circulating in our state’s economy (vs. exporting it to other states or countries). The staff analysis suggests decent GHG reduction potential here, as well.
 - R&D is needed before proceeding. R&D needs to be coordinated with regional and national efforts.
 - Development of Washington specific industry with employment in depressed communities
 - Consistent with T-11
- **Notes:**
 - Cellulosic ethanol technologies are still a few years away, but they should be aggressively pursued in Washington. Near term, aggressive fuel measures will likely require imports of feedstock and finished fuels for some time, but this is a laudable goal and should be part of the low carbon fuel standard development.

F-7: Improved Commercialization of Advanced Lignocellulosic Processes (6 votes)

– **Sample reasons strategy is ‘most promising’**

- This is really the key to make biofuels truly sustainable.
- I view this option as a good stop-gap measure until more viable options are developed.
- Consistent with T-11
- This technology will be developed in the next 5-7 years. It is important to fund research in this area to promote getting to commercialization faster
- While not currently cost effective, results in enormous non-quantified benefits to economy – like cost pressures on food products, ag economy outside biofuels production. Very beneficial long term.

– **Notes:**

- This is important but needs some time to develop. This can be part of a strategy to bring low carbon fuels to the state.

T-6 Improvements to Freight Railroads and Intercity Passenger Railroads (4 votes)

– **Some of the reasons given why strategy is ‘most promising’**

- Would love to see this implemented. This will reduce emissions but could also be an economic advantage to the region if we were able to move freight more quickly and attract new businesses.
- With the numbers would indicate this is not a cost-effective item, rail is a more efficient mover of freight than multiple semi tractor trailers and the current infrastructure is already significantly undersized.
- A lot of right-of-ways and infrastructure already exist; but its use is not optimized.
- There will be a need for improved rail anyway as the best alternative to move freight...and possibly people.

– **Notes:**

- This is important; we’ve identified it as a Top 3 priority under Headline #3 below.

Other Strategies

T-12: Zero Emission Vehicle Standards and Low-GHG Refrigerants (2)

– **Notes:**

- Should T-11 and T12 be combined?
- Important, but I doubt we’d get the reductions we might see from the other strategies. I also think the other strategies could add economic benefit to the region. There are non-greenhouse gas reasons for doing this as well.
- This is a must given correct timing, I believe that in the long run this will be the best answer.

T-0 New Funding Mechanisms (1 vote)

– **Notes:**

- The state must develop viable long-term financing of projects while discouraging certain transportation behaviors and encouraging other behaviors.
- Without additional funding (new revenue, the more flexible use of existing revenue, or both), we can’t implement the rest of these strategies. We need a thorough review of current state transportation funding policies and priorities, to ensure alignment with the Governor’s Executive Order 07-02.
- Sure, but is listed above?

AW-1: Manure digestion for transportation fuel (1 vote)

– **Notes:**

- Compressed natural gas produced from manure, food waste, landfills and waste-treatment plants will be the lowest-carbon intense and likely the least expensive “biofuel” option produced from in-state biomass.

3. Shift Washington’s transportation investments from moving vehicles towards moving people and goods and make the most efficient use of our existing transportation infrastructure and capacity (Original: Make Washington’s transportation infrastructure as efficient as possible in moving people and freight)

#	Strategy Title	# of Votes
T-3	Transportation Pricing	10
T-6	Improvements to Freight Railroads and Intercity Passenger Railroads	9
T-9	Transportation System Management	6
T-0	New Funding Mechanisms	5
T-5	<i>Quantification of GHG Impacts of Transportation Plans, Programs, and Projects</i>	3
AW-8	Support for an Integrated Regional Food System	1
T-1	Transit, Ridesharing, and Commuter Choice	Added – 1

'Most Promising' Strategies

T-3: Transportation Pricing (10 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o *All same reasons given in Headline #1, above, but one:* Tolling is likely in the I-5 bridge as well as projects in the Puget Sound area (it all ready is on the Narrows Bridge in Tacoma). Longer term, the use of mileage based pricing (based upon miles driven or mileage rating of vehicles) may be the necessary incentive to decrease consumption.

T-6: Improvements to Freight Railroads and Intercity Passenger Railroads (9 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o A weakness of the area economically is poor freight transportation reliability. We can start to move people with transit, but there also needs to be freight options.
 - o Amtrak Cascades service is frequently sold out on weekends: we need more capacity. Investment in passenger and freight rail infrastructure can lead to significant reductions in VMT.
 - o Particularly the freight aspects.; Washington's freight transport options are horrific in many parts of the state. The desire to ramp up production of alternative fuels, etc. will likely increase freight traffic in-state.
 - o Although expensive works well in other parts of country and world
 - o While the numbers would indicate this is not a cost-effective item, rail is a more efficient mover of freight than multiple semi tractor trailers and the current infrastructure is already significantly undersized.
 - o We believe the GHG reduction estimates in the staff analysis may be understated. Movement of passengers and freight by an efficient rail system decreases overall greenhouse gas emissions by 2-4 times as compared to movement by highway.
 - o The movement of freight and people by rail is not only appropriate but necessary in the near future. It is more economical and environmentally friendly...as well as more efficient. It also keeps trucks off the roads.

T-9: Transportation System Management (6 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Need to emphasize the availability of alternatives and make it cheap enough to make it worthwhile
 - o This strategy includes HOV and transit lanes, which are extremely important for reducing GHGs from transportation.
 - o Consistency with current actions; appropriate governmental role.
 - o The state must find a way to accomplish efficiency on the existing transportation infrastructure.
 - o An easier priority to move on more quickly. While not quantified, there would be significant benefits in the primary area of the state's GHG footprint, transportation.
 - o This is tied in with T-3 above. Lane management will also be important.
- **Notes**
 - o This is important and a good short-tem, low-hanging fruit type strategy. But not at the same level as the other three

T-0: New Funding Mechanisms (5 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o The state must develop viable long-term financing of projects while discouraging certain transportation behaviors and encouraging other behaviors.

- o You get what you pay for.
- o Must have funding
- o Without additional funding (new revenue, the more flexible use of existing revenue, or both), we can't implement the rest of these strategies. We need a thorough review of current state transportation funding policies and priorities, to ensure alignment with the Governor's Executive Order 07-02. The State should review proposed investments that fund expanded auto capacity and instead shift to investment that makes more efficient use of our transportation system and focuses on moving people and goods instead of moving vehicles
- o Sure - see above? Not sure why this one is listed three times.

Other strategies

T-5: Quantification of GHG Impacts of Transportation Plans, Programs, and Projects (3 votes)

Notes

- o Am I correct that SEPA fits in here?
- o You get what you measure. These dots must be connected.
- o Supports the actions that will be needed to drive change through regulatory process.
- o Already required by law, but not a top strategy to get tons reduced directly.
- o This is important, but we consider this to be part of the SEPA effort that is already going forward. As such, this should be identified as an "Early Action" for the state. We would further support moving from a system of disclosure to one that establishes emission thresholds and associated mitigation requirements.

AW-8: Support for an Integrated Regional Food System (1 vote)

Notes

- o This option deserves significant consideration as its potential benefits are striking. Washington is well positioned for a variety of food products. Locally and regionally grown and consumed products reduce transportation GHGs, as well as promote economic opportunity. There is potential for carbon storage, as well as biofuels.

T-1: Transit, Ridesharing, and Commuter Choice (Added to list, 1 vote)

Notes

- o Efficiency of the highway system is best addressed by increasing average vehicle occupancy: the current CTR program has led to a 19% reduction in delay in central Puget Sound.

4. Design, build, upgrade and operate new and existing buildings and equipment to maximize energy efficiency (Original - Build, operate and maintain smart, energy-efficient buildings and equipment)

#	Strategy Title	# of Votes
RCI-2	Targeted Financial Incentives and Instruments to Encourage Energy Efficiency Improvements (Business Energy Tax Credit and Private/Public Efficiency Funds)	10
RCI-1	Demand-Side Management (DSM) Energy Efficiency Programs, Funds, or Goals for Natural Gas, Propane, and Fuel Oil	10
RCI-4	Energy Efficiency Improvement in Existing Buildings, with Emphasis on Building Operations	9
RCI-10	More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design	8 (and 2 suggested moving to Headline 7)
RCI-3	Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors	8

RCI-11	<i>Policies and/or Programs Specifically Targeting Non-energy GHG Emissions</i>	2 (and 1 moved to Headline 7)
RCI-7	<i>Provide Incentives and Resources to Promote and Reduction of Barriers to Implementation of Combined Heat and Power (CHP, or “cogeneration”) and Waste Heat Capture, Including Net-metering for Combined Heat and Power</i>	1
ES-6	<i>Transmission system capacity, access, efficiency, and Smart Grid</i>	1
ES-7	<i>Combined Heat and Power (CHP) and Thermal Energy Recovery and Use</i>	1
F-5	<i>Expanded Use of Wood Products for Building Materials</i>	1
RCI-8	<i>Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings</i>	0
ES-4	<i>Technology Research & Development, plus Technology-Focused Initiatives</i>	0

‘Most Promising’ Strategies

RCI-2: Targeted Financial Incentives and Instruments to Encourage Energy Efficiency Improvements (10 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - o Consumer programs are a great way to educate and engage our citizens on this issue. Also provides a highly efficient option, although the programs need to be progressive, as opposed to regressive, so they don’t adversely impact lower socio-economic groups.
 - o Some technologies and practices will need a transitional incentive to make them economically feasible.
 - o A Financial incentive that will be easy to move on quickly and will be beneficial for economic development and job creation.
 - o Makes a dent in existing infrastructure
 - o Right role for government – send economic signals to promote energy efficiency.
 - o These instruments will maximize implementation / \$\$\$. We know what to do, really as just re-emphasized in the McKinsey & Company report just released. We need to DO efficiency
 - o If done correctly, the incentives could be revenue neutral when considering new job creation. Seems like low-hanging GHG reduction fruit and helps meet clean energy jobs goal. Business would obviously support as well. (also includes ES-2)
 - o RCI1 and 2 could not be quantified separately so I’d combine them. Large, economically attractive savings. No-brainers.
 - o I voted for RCI 1 and 2 together, since the consultant’s analysis showed that these two are intertwined.
 - o Required for RCI-1 to be successful.
 - o In Oregon we have seen the benefits of having a business energy tax credit as evidenced by greater penetration for energy efficiency projects. This strategy could have an immediate and positive impact in lowering overall demand in the multi-family, commercial and industrial sectors.
- **Notes:**
 - o Equitable incentives for both public and private companies would stimulate additional energy efficiency (e.g. conservation) improvements. This is included with other RCI measures.

RCI-1: Demand-Side Management (DSM) Energy Efficiency Programs, Funds or Goals for Natural Gas, Propane and Fuel Oil (10 votes)

- **Some of the reasons given why strategy is ‘most promising’**
 - o Significant emission savings, excellent net present value and cost effectiveness.
 - o Consumer programs are a great way to educate and engage our citizens on this issue. Also provides a highly efficient option, although the programs need to be progressive, as opposed to regressive, so they don’t adversely impact lower socio-economic groups.
 - o Large GHG reduction with projected -\$32 unit cost. Helps deal with aging inefficient infrastructure and also should help meet clean energy jobs goal. Good package to address the non-electric side of the equation. Broad based for residential and commercial.

- Significant potential. This can be coordinated with RCI-3 as part of the improved design.
- RCI1 and 2 could not be quantified separately so I'd combine them. Large, economically attractive savings. No-brainers.
- I voted for RCI 1 and 2 together, since the consultant's analysis showed that these two are intertwined.
- The staff analysis suggests huge GHG reduction benefits here, and the cost-effectiveness numbers are excellent. Electricity DSM was addressed in I-937 – we advocate for similar targets (and programmatic offerings) for other (and often more GHG-intensive) fuel sources, such as natural gas.
- Cost effective, allows for incentives and market driven. Near term implementation.
- Efficient use of thermal resources should be a priority target for energy efficiency. Reducing the use of thermal resources such as fuel oil could provide immediate GHG reduction benefits. Also, the infrastructure for transforming markets is not as matured as for electric efficiency and should be accelerated.
- This is all ready being done in some respects such as I-937 requirements. Creation of incentives and/or surcharges would also provide incentive.

RCI-4: Energy Efficiency Improvements in Existing Buildings, with an Emphasis on Building Operations (9 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - Very significant emission savings (2nd highest of RCI options), good net present value and cost effectiveness.
 - Makes a dent in existing infrastructure.
 - Building operations are a large source of emissions, particularly for the business community. This could be designed to encourage retrofits, etc.
 - Potential impact on GHG; cost-effectiveness; consistency with current actions.
 - Linked with RCI-2, in BIG programs; and critical – we will not achieve the goals we need to without addressing the existing building stock.. This one has big JOBS upside
 - Big opportunity, insufficiently tapped, good economics
 - Large GHG reduction with projected -\$3 unit cost. Helps deal with aging inefficient infrastructure and also should help meet clean energy jobs goal.
 - Similarly, we need to significantly increase the energy efficiency of our existing building stock, and that's what RCI-4 does. We strongly support the idea of encouraging or requiring energy efficiency assessment/upgrades at the point-of-sale for residential properties, and by a date certain for commercial and/or rental properties. The staff analysis suggests huge GHG reduction benefits here, and the cost-effectiveness numbers are excellent. We encourage the state to consider the development of a rating/assessment system for existing properties as another possible "early action." Similar efforts are underway in California as part of their upcoming legislative session.
- **Notes:**
 - Requiring existing residential homes to be brought up to standards at the time of resale is cost prohibitive and may destroy the equity that sellers depend on at the time of retirement. Incentives to encourage buyers to perform upgrades (via low-interest loans, rebates, etc) would be worthwhile.

RCI-10: More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design (8 votes) (and 2 people suggested it be moved to Headline 7)

- **Some of the reasons given why strategy is 'most promising'**
 - Very Significant emission savings (most significant of all RCI options), greatest net present value of RCI options, excellent cost effectiveness, provides "up-stream" solutions that become universally available and used.
 - Efficiency generally pays for itself.
 - This should be regulated especially in new construction.
 - Makes a dent in existing infrastructure
 - Potential impact on GHG; cost-effectiveness; consistency with current actions.
 - Again link with RCI-2. Making what goes in the buildings and the equipment as efficient as possible.
 - One of the most efficient methods to reduce energy use is through lighting efficiency standards.
 - This seems obtainable. It will require legislative support and matches some of the proposals in California.

– **Notes:**

- I didn't vote for this one because I'm not sure if new efficiency standards are ready to be adopted in the near future. If they are, I might change one of my votes to this.
- This is hugely important, too. The staff analysis suggests very significant GHG reduction potential, and the cost-effectiveness numbers are excellent. If we were allowed a 4th X, we'd choose RCI-10! We haven't included it in our Top 3 only because we believe a lot of federal policy improvements along these lines are in the works, and that, given how good the numbers are, this should be pursued by the State as an "early action," regardless of our climate protection recommendations to the Governor.

RCI-3: Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors (8 votes)

– **Some of the reasons given why strategy is 'most promising'**

- Significant GHG savings, good net present value and cost savings, builds on existing momentum.
- I think this is a good option, yet I think that there needs to be more. Standards, regulations.
- Need to push the envelope on building technology
- There are things that can be promoted sooner in this option, such as green building, and work that can be phased in over time, such as community design and redesign.
- Green building is taking hold in our state, but we need to do more. We need to dramatically increase the energy efficiency of new buildings, and that's what RCI-3 does. In our view, this needs to include more stringent state energy codes for commercial and residential buildings -- stronger codes that bring us in line with the goals of the Architecture 2030 Challenge: carbon-neutral buildings by 2030. In addition, we are strongly committed to improved "green neighborhood" level planning and development, also addressed in this strategy. The staff analysis suggests significant GHG reduction potential here, and the cost-effectiveness numbers also are very good.
- Good reductions, cost effective and can be implemented. (Very difficult to understand and trust quantification however)
- Greater efficiency can typically be achieved during the initial design of communities and newly constructed buildings. More opportunity exists at this stage vs. retrofitting a building. Retrofitting "communities" to be more efficient is even more difficult. It would also be more efficient to include strategy RCI-7 into this strategy since CHP can more easily and cost-effectively incorporated in new construction and new community designs.
- Improved planning and permit requirements are necessary. This will require revised building codes.

Other Strategies

RCI-11 Policies and/or Programs Specifically Targeting Non-energy GHG Emissions (2 votes – 1 other suggested moving to Headline 7)

– **Notes:**

- Potential impact on GHG; cost-effectiveness.
- Suggest moving to Headline 7

RCI-7 Provide Incentives and Resources to Promote and Reduction of Barriers to Implementation of Combined Heat and Power (CHP, or "cogeneration") and Waste Heat Capture, Including Net-metering for Combined Heat and Power (1 vote)

– **Notes:**

- Cogeneration has a lot of potential to lower the carbon content of electrical generation, and can be done on a large scale to make a difference early.
- Suggest combining with ES-7.

ES-6: Transmission system capacity, access, efficiency, and Smart Grid (1 vote)

– **Notes:**

- Especially access and smart grid to allow small producers to supply
- This is also important as it is a current barrier for some renewables.
- Critical enabling technology for low-carbon energy sources. Prioritized below
- Smart grid technologies are available for managing end use, but are not readily available for managing the grid.

ES-7: Combined Heat and Power (CHP) and Thermal Energy Recovery and Use (1 vote)

– **Notes:**

- Funding for the implementation of combined heat and power for industrial and commercial processes is needed. Drying processes can use waste heat from electric generation and steam processes can use waste steam for heating purposes.

F-5: Expanded Use of Wood Products for Building Materials (1 vote)

– **Notes:**

- Wood products generate significantly less greenhouse gas emissions compared to other building materials. Therefore, the state should ensure that both residential and commercial building maximize the use of building with wood products from sustainable sources.

RCI-8: Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings (0 votes)

ES-4: Technology Research & Development, plus Technology-Focused Initiatives (0 votes)

5. Meet power supply requirements through the efficient use of fuels and from non-carbon or lower carbon intensity fuel sources. (Original: Deliver power from lower carbon sources and more efficient use of fuels)

#	Strategy Title	# of Votes
ES-6	Transmission system capacity, access, efficiency, and Smart Grid	7
ES-7	Combined Heat and Power (CHP) and Thermal Energy Recovery and Use	7
ES-1	Grid-based renewable energy incentives and/or barrier removal	7
RCI-5	Rate structures and Technologies to Promote Reduced GHG Emissions (including Decoupling of Utility Sales and Revenues)	6
ES-2	Distributed renewable energy incentives and/or barrier removal	4
ES-5	CCSR (including pre and post-combustion) incentives, requirements and/or enabling policies plus R&D	3
ES-3	Efficiency improvements at existing renewable and power plants	2
ES-4	Technology Research & Development, plus Technology-Focused Initiatives	2
RCI-6	Provide Incentives to Promote and Reduction of Barriers to Implementation of Renewable Energy Systems	1
RCI-7	Provide Incentives and Resources to Promote and Reduction of Barriers to Implementation of Combined Heat and Power (CHP, or “cogeneration”) and Waste Heat Capture, Including Net-metering for Combined Heat and Power	1
AW-1	Manure Digesters/Other Waste Energy Utilization	1
F-6	Expanded Use of Biomass Feedstocks for Electricity, Heat and Steam Production	1
F-7	Improved Commercialization of Advanced Lignocellulosic Processes	1 added – 0 votes
AW-2	In-State Production of Biofuels and Biofuels feedstocks	1 added – 0 votes

‘Most Promising’ Strategies

ES-6: Transmission system capacity, access, efficiency, and Smart Grid (7 votes)

- **Some of the reasons given why strategy is ‘most promising’**

- Transmission upgrades are needed to get alternatives to population centers
 - This is critical and second, because metering / smart grid and enhanced transmission system functional capacity is precursor enabling markets for Demand Response (DR), DSM; as well as increasing delivery efficiency of all generation resources, including both centralized and distributed renewables and energy storage
 - Critical enabling technology for low carbon technologies and energy systems
 - Needed capacity for ES-1, RCI-2, and ES-7.
- **Notes:**
- Transmission system access, efficiency, and utilization of the existing transmissions grid may have the biggest impact on Washington’s ability to develop the next generation of grid based renewable resources. As such, we believe that this strategy should be combined with ES-1 as a priority action.

ES-7: Combined Heat and Power (CHP) and Thermal Energy Recovery and Use (7 votes)

- **Some of the reasons given why strategy is ‘most promising’**
- Potential impact on GHG; cost-effectiveness.
 - Significant opportunity well-matched to regional industries
 - Transmission system access, efficiency, and utilization of the existing transmissions grid may have the biggest impact on Washington’s ability to develop the next generation of grid based renewable resources. As such, we believe that this strategy should be combined with ES-1 as a priority
 - Transmission system access, efficiency, and utilization of the existing transmissions grid may have the biggest impact on Washington’s ability to develop the next generation of grid based renewable resources. As such, we believe that this strategy should be combined with ES-1 as a priority
 - Considering other community design issues being contemplated, this seems like a good option to encourage with large GHG reduction and low unit cost \$9. Could be even more attractive when new avoided cost of energy is calculated. (includes RCI-7)
 - This is an action that can be moved on quickly and incent greater deployment of CHP for significant efficiency gains.
 - The staff analysis suggests significant GHG reduction potential here, and the cost-effectiveness numbers are very good. Combined heat and power systems are very efficient and have both large and small-scale applications. Incentives and policy actions to remove barriers to installation of these systems are vital.
 - Market based, significant reductions.
- **Notes:**
- Should include linkages to RCI-7 and F-6

ES-1: Grid-based renewable energy incentives and/or barrier removal (7 votes)

- **Some of the reasons given why strategy is ‘most promising’**
- Seems to be the lynch-pin for implementing large-scale renewable energy capturing large GHG reductions.
 - Washington can provide monetary incentives and partnerships for the development of new resources, and remove the barriers of regulatory uncertainty and inadequate transmission.
 - Combine with ES-2. Cost-effective and efficient renewable energy development should be encouraged.
 - Cost effective and achievable, with caveat – must not allow incentives to Utility AND allow costs to be directly passed to consumers – no double dip.
 - We need more renewable energy.
 - The staff analysis suggests significant GHG reduction potential here.
 - Removing barriers seems reasonable and necessary to support I-937. Incentives may also be necessary.

RCI-5: Rate structures and Technologies to Promote Reduced GHG Emissions (including Decoupling of Utility Sales and Revenues) (6 votes)

- **Some of the reasons given why strategy is ‘most promising’**
- Cogeneration has a lot of potential to lower the carbon content of electrical generation, and can be done on a large scale to make a difference early.
 - Cost-effectiveness; consistency with current actions.
 - Rates are the mechanism to change the utility behavior. But in Washington, laws would need to enforce these behaviors on public utilities as well, in ways that change their behavior
 - Removes fundamental barrier to cost-effective efficiency improvements

- This is closely tied to our ability to achieve the goals of other RCI and ES actions. The cost-effectiveness numbers are excellent. Analysis from states initiating decoupling and other restructuring activities have shown significant energy and dollar savings over very short implementation study periods.
- This would seem to provide incentives for consumers to participate in reducing GHG emissions.
- **Notes:**
 - Looks good - While providing low reduction in GHG emissions, the net present value is negative dollars (a good thing) and it introduces "market incentives" for reductions in emissions.
 - R&D is required in short-term
 - Absolutely no de-coupling.

ES-2 Distributed renewable energy incentives and/or barrier removal (4 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - Renewables are intrinsically distributed, and unit size is small/modular. Many advantages to recognizing and promoting this model
 - The primary barrier to the development of more distributed generation (< 2 MW for PSE) is the high initial cost which must be borne by the customer-generator. Tax credits, no-interest loans and rebates can make investment more attractive.
 - Not sure how this is different from above, as the two are linked. Many renewables are from smaller distributors who can't get on the grid.
 - This is tied into ES-1 and RCI-5 relating to incentives and removal of barriers.

Other Strategies

ES-5 - CCSR (including pre and post-combustion) incentives, requirements and/or enabling policies plus R&D (3 votes)

- **Notes:**
 - Carbon capture and sequestration is one of the most important developments if the US is to meet any significant CO2 reduction goals. Washington has a huge potential with the vast basalt rock formations; however, government leadership is required for both research and to establish rules for liability as Texas has done.
 - Though somewhat controversial to some, any effective global effort will need to address this issue.
 - Important for long term impact on GHG; called for by current law; targeted approach to R&D.
 - R&D funding is required in short-term.

ES-3 - Efficiency improvements at existing renewable and power plants (2 votes)

- **Notes:**
 - Energy efficiency should be required and encouraged at all existing projects
 - These are actions that can be moved on quickly and incent greater deployment of energy efficiency processes and equipment significant efficiency gains.

ES-4 - Technology Research & Development, plus Technology-Focused Initiatives (2 votes)

- **Notes:**
 - Serious deployment of many future low-carbon energy options for the state will require a substantial investment in R & D

RCI-6 - Provide Incentives to Promote and Reduction of Barriers to Implementation of Renewable Energy Systems (1 vote)

- **Notes:**
 - Combine with ES-1 and ES-2

RCI-7 Provide Incentives and Resources to Promote and Reduction of Barriers to Implementation of Combined Heat and Power (CHP, or "cogeneration") and Waste Heat Capture, Including Net-metering for Combined Heat and Power (1 vote)

- **Notes:**
 - These are actions that can be moved on quickly and incent greater deployment of CHP for significant efficiency gains.

AW-1 Manure Digesters/Other Waste Energy Utilization (1 vote)

– **Notes:**

- Low-hanging “fruit” – so to speak, solves a multitude of problems
- Include as renewable resource. Don’t limit or specify type of resource to be used. Establish goals and let market determine best approach.

F-6 - Expanded Use of Biomass Feedstocks for Electricity, Heat and Steam Production (1 vote)

– **Notes:**

- Multiple benefits and cost effective
- Include as renewable resource. Don’t limit or specify type of resource to be used. Establish goals and let market determine best approach.

F-7 Improved Commercialization of Advanced Lignocellulosic Processes (Added, 0 votes)

AW-2 In-State Production of Biofuels and Biofuels feedstocks (Added, 0 votes)

6. Restore and retain the health and vitality of Washington’s farms and forest lands to increase the sequestering and storage of carbon, to reduce the release of greenhouse gas emissions and to support the provision of biomass fuels. (Original: Retain Washington’s working forests and farms and enhance their productivity in storing carbon)

#	Strategy Title	# of Votes
AW-4	Agricultural Carbon Management	8 (1* suggestion – combined AW 4, 5, 6)
F-1	Improved Forest Health	7
F-2	Reduced Conversion to Nonforest Cover	7
F-8	Urban and Community Forests	5
AW-7	Preserve Open Space/Agricultural Land	5
F-7	Improved Commercialization of Advanced Lignocellulosic Processes	4
AW-5	<i>Agricultural Nutrient Management</i>	2*
AW-6	<i>Reductions In On-Farm Energy Use and Improvements in Energy Efficiency</i>	2*
AW-2	<i>In-State Production of Biofuels and Biofuels feedstocks</i>	2
F-3	<i>Enhanced Carbon Sequestration in Forests</i>	1
AW-8	<i>Support for an Integrated Regional Food System</i>	1
F-4 & F-5	<i>Enhanced carbon sequestration in harvested wood products And Expanded Use of Wood Products for Building Materials</i>	<i>Added and Combined – 1 Vote</i>

‘Most Promising’ Strategies**AW-4: Agriculture Carbon Management (8 votes)**

– **Some of the reasons given why strategy is ‘most promising’**

- Reasonable GHG emission savings, excellent net present value, good cost effectiveness.
- Large potential for GHG reductions and co-benefits.
- Cost-effectiveness; consistency with current actions; co-benefits.
- Cost effective, consistent with good agricultural practices.
- Known agricultural practices has been shown to increase terrestrial carbon sequestration at little or no cost. While there is limited potential it is a viable bridging technology until geologic sequestration is common.
- Merge AW-4, 5, 6
- Promising, but a long term research and educational process.

F-1: Improved Forest Health (7 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Large potential for GHG reductions and co-benefits.
 - o Improving the health of Washington's forests is a critical first step in capturing numerous carbon footprint / biomass energy benefits from forests.
 - o Public visibility; potential impact on GHG; consistency with current actions; co-benefits.
 - o Improving forest health is critical in reducing GHGs from catastrophic fire and to protect lives and property in wild land urban interface. It is a major issue for property and casualty insurers in central and eastern Washington. Forest treatment also supports F-7.
 - o Healthy forests will be less susceptible to natural disturbances. (i.e.: fire, infestation, etc.)
 - o Even though no direct quantification possible, essential to the future of WA forests w/ significant benefit due to fire control.

F-2: Reduced Conversion to Nonforest Cover (7 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o One of the more significant options of all for GHG emission savings.
 - o This is directly tied to land use, and could be used to reduce sprawl and encourage density.
 - o Potential impact on GHG; cost-effectiveness; consistency with current actions; co-benefits; relation to Headline 1; THIS DEPENDS ON SPECIFIC IMPLEMENTATION MEASURES CHOSEN.
 - o Important for both carbon storage and reducing sprawl
 - o This is by far the most important action in this category, in terms of GHG reductions.

F-8: Urban and Community Forests (5 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Also promotes other quality of life issues and increases land values
 - o Visibility; cost-effectiveness; consistency with current actions; co-benefits; relation to Headline 4
 - o The GHG reduction numbers are smaller here, but the cost-effectiveness numbers are excellent. Also, keep in mind that this action is closely tied to the success of others, notably T-4
 - o Primarily a planning and zoning process over time.

AW-7: Preserve Open Space/Ag Land (5 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Reasonable GHG emissions savings and numerous other social and environmental benefits.
 - o Important for reducing sprawl and transportation emissions
 - o Multiple benefits and cost effective.
 - o Might have significant political challenges in limiting use of land to maintain open space.

F-7: Improved Commercialization of Advanced Lignocellulosic Processes (4 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Needed to promote R&D (with AW-2) for Washington feedstock supplies to promote and support LCFS. (T-11)

Other Strategies

AW-5: Agricultural Nutrient Management (2 votes)

- **Notes:**
 - o Dairy digesters are an example of a technology which will reduce the application of high-methane organic matter and hence reduce GHG production.
 - o Merge AW 4, 5, 6

AW-6: Reductions In On-Farm Energy Use and Improvements in Energy Efficiency (2 votes)

- **Notes:**
 - o Merge AW-4, 5, 6 - The same basic set of ag practices address all three of these policy options – thus the merging of them into one line. Essentially, restoring the health and fertility of ag lands is AN ESSENTIAL AND FUNDAMENTAL first step for reducing the carbon footprint of agriculture, providing a

- o sustainable basis for providing biomass energy feedstocks from agriculture, and for maintaining a sustainable agricultural base in a disruptive climate context.
- o More effort needs to be devoted to the state's ag sector both to reduce GHGs and to lower costs which will help preserve the sector.

AW-2 In-State Production of Biofuels and Biofuels feedstocks (2 votes)

- **Notes:**
 - o Needed to promote R&D (with F-7) for Washington feedstock supplies to promote and support LCFS. (T-11)

F-3 - Enhanced Carbon Sequestration in Forests (1 vote)

- **Notes:**
 - o Large potential for GHG reductions and co-benefits.

AW-8: Support for an Integrated Regional Food System (1 vote)

- **Notes:**
 - o This action has a lot of co-benefits beyond climate protection, including support for WA state farmers and community-building.

F4 & F-5: Enhanced carbon sequestration in harvested wood products and Expanded Use of Wood Products for Building Materials (1 vote)

- **Notes:**
 - o Combined:- very similar options. Wood products generate significantly less greenhouse gas emissions compared to other building materials. Therefore, the state should ensure that both residential and commercial building maximize the use of building with wood products.

7. Reduce waste and Washington's global warming pollution through improved product choices and committed environmental stewardship (Original: Reduce waste and our carbon footprint through product choice and stewardship)

#	Strategy Title	# of Votes
AW-3	Significantly Expand Source Reduction, Reuse, Recycling and Composting	13
RCI-8	Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings	6
F-5	<i>Expanded Use of Wood Products for Building Materials</i>	3
RCI-11	<i>Policies and/or Programs Specifically Targeting Non-energy GHG Emissions</i>	Added - 3
F-4	<i>Enhanced Carbon Sequestration in Harvested Wood Products</i>	2
RCI-10	<i>More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design</i>	Added - 2
AW-1	<i>Manure Digesters/Other Waste Energy Utilization</i>	Added - 1
AW-2	<i>In-State Production of Biofuels and Biofuels feedstocks</i>	Added - 1

'Most Promising' Strategies

AW-3: Significantly Expand Source Reduction, Reuse, Recycling and Composting (13 votes)

- **Some of the reasons given why strategy is 'most promising'**
 - o Low cost/ton for reductions and co-benefits.
 - o Drives fundamental policy and behavioral change shifts toward "beyond waste"
 - o Very efficient way to reduce GHGs, since most cities have strong programs that could be easily enhanced. Public is already familiar with and supportive of these approaches.
 - o Potential impact on GHG; cost-effectiveness; consistent with current actions; market-based; co-benefits

- Recycling has been a successful endeavor, but we can do better. Emerging technologies and an increased desire by the public make this an attractive option with significant GHG reductions and potentially very cost-effective. It also helps to promote the importance of climate change to the public.
- Major opportunity with significant co-benefits
- This is by far the most important action in this category, from a GHG reduction perspective.
- With proviso that recycling rates be technologically feasible, particularly source reduction goals. Must have provision for FDA covered food products to be treated separately, such as CA law allows for food safety purposes.
- This is a “must”. It will have a significant educational part to it.

RCI-8: Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings (6 votes)

– **Some of the reasons given why strategy is ‘most promising’**

- Consumers need to understand the impacts of their choices and be empowered to make better choices.
- Also a good strategy, and the certification programs have a strong role to play here.
- Yes** (but prefer to move education into comprehensive approach) - This should be expanded and moved into the comprehensive approach as a larger education plank.
- Labeling would identify climate friendly products in an objective way.
- This also is an educational but doable approach.

Other Strategies

F-5: Expanded Use of Wood Products for Building Materials (3 votes)

– **Notes:**

- Washington has an enormous resource in timber. The climate benefits of using wood versus other building products should be supported and explored early reap both climate and economic benefits of creating wood alternatives to more energy intensive building materials.
- Wood products generate significantly less greenhouse gas emissions compared to other building materials. Therefore, the state should ensure that both residential and commercial building maximize the use of building with wood products.

RCI-11: Policies and/or programs specifically targeting non-energy GHG emissions. (3 votes, all moved from Headline 4)

– **Notes:**

- Changing the GHG impacts of products available for use and purchase is an “upstream” solution that becomes universally available and used.
- I moved this from Headline 4 because it seems to fit better here.
- Would have voted yes if RCI 8 is moved into comprehensive approach

F-4: Enhanced Carbon Sequestration in Harvested Wood Products (2 votes)

– **Notes:**

- Wood products generate significantly less greenhouse gas emissions compared to other building materials. Therefore, the state should ensure that both residential and commercial building maximize the use of building with wood products.

RCI-10: More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design (2 votes, both moved from Headline 4)

– **Notes:**

- Very Significant emission reductions (most significant of all RCI options), greatest cost savings of RCI options, excellent cost effectiveness, provides “up-stream” solutions that become universally available and used.
- Very cost-effective way to ensure efficiency

AW-1: Manure Digesters/Other Waste Energy Utilization (1 vote)

– **Notes:**

- Additive to AW-3 – reroutes one of the most noxious organic wastes in the state – reducing CO₂, CH₄ and N₂O (and other air pollutants) emissions associated with the waste stream

AW-2: In-State Production of Biofuels and Biofuels feedstocks (1 vote)

– **Notes:**

- Additive to AW-3 – reroutes numerous ag “wastes” and the emissions associated with them to beneficial uses

Proposed Headline

8. Build villages that have smart, integrated and networked energy supply and use patterns.

#	Strategy Title	# of Votes
T-4	Promote Compact and Transit-Oriented Development	1
T-10	Actions to Accelerate and Integrate Plug-In Hybrid Electric Vehicle Use	1
ES-6	Transmission system capacity, access, efficiency, and Smart Grid	1
ES-2	<i>Distributed renewable energy incentives and/or barrier removal</i>	
ES-7	<i>Combined Heat and Power (CHP) and Thermal Energy Recovery and Use</i>	
RCI-3	<i>Promotion and Incentives for Improved Community Planning and Improved Design and Construction (Third-party Sustainability, Green, and Energy Efficiency Building Certification Programs) in the Private and Non-State Public Sectors</i>	

'Most Promising' Strategies

T-4: Promote Compact and Transit-Oriented Development

- Reason given why strategy is 'most promising'
 - o Need physical proximity to minimize waste and to share energy resources efficiently (esp. thermal). Also to encourage transit-based commuting.

T-10: Actions to Accelerate and Integrate Plug-In Hybrid Electric Vehicle Use

- Reason given why strategy is 'most promising'
 - o Plug-in hybrids are a powerful enabling technology that are really available now. Large efficiency gains are seen immediately. In this development model as we exploit the extremely valuable distributed energy storage resource in PHEVs through Vehicle-to-Grid (V2G) technology, using Smart Grids, power system efficiency will increase dramatically and distributed renewables efficacy will be increased.

ES-6: Transmission system capacity, access, efficiency, and Smart Grid

- Reason given why strategy is 'most promising'
 - o Metering / smart grid and enhanced transmission system functional capacity are precursors enabling markets for Demand Response (DR), DSM; as well as increasing delivery efficiency of all generation resources, including both centralized and distributed renewables and energy storage.

Other Strategies

ES-2: Transmission system capacity, access, efficiency, and Smart Grid

- Notes:
 - o Renewables are intrinsically distributed, and unit size is small/modular. Many advantages to recognizing and promoting this model

ES-7: Combined Heat and Power (CHP) and Thermal Energy Recovery and Use

- Notes:
 - o Well realized in the Energy Integrated and Networked Village – as low temperature district energy, utilizing waste heat from industry or a central power plant

RCI-3: Promotion and Incentives for Improved Community Planning and Improved Design and Construction in the Private and Non-State Public Sectors

- Notes:
 - o Supports all above