



2018 Chittenden County ECOS Plan

Supplement 1 – ECOS Plan Process
Second Public Hearing Draft 4/6/2018

For a healthy,
inclusive, and
prosperous
community



**This plan is the Regional
Plan, Metropolitan
Transportation Plan, and
Comprehensive Economic
Development Strategy in
one.**

**This plan can be found
online at:
www.ecosproject.com/plan**

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2018 Chittenden County ECOS Plan

SUPPLEMENT 1 – ECOS PROCESS SUMMARY

2018 ECOS Plan Process

In 2018 the ECOS Plan was updated with emphasis on three specific sections: the Metropolitan Transportation Plan (MTP), the Comprehensive Economic Development Strategy (CEDS), and enhanced energy planning. The Plan was also reorganized to bring the implementation section up front. The data, analysis, and specifics of the Regional Plan, MTP, CEDS and energy methodology are now located in separate supplements. In addition, minor Future Planning Area changes were made to address local zoning changes, forest integrity was addressed in response to Act 171, and other minor edits were made.

CCRPC's Long Range Planning Committee led the effort to update the ECOS Plan with CCRPC's Technical Advisory Committee acting as the working group on the MTP; the energy sub-committee acting as the working group on the enhanced energy planning; and the GBIC Staff and Board acting as advisors on the CEDS. In addition, the ECOS Leadership team provided guidance on the update.

While CCRPC, worked closely with its member municipalities throughout the update process, public comment periods were also held as follows:

- Enhanced Energy Plan: comment period was open from October 31, 2017 to November 22, 2017. 79 comments were received. CCRPC also conducted presentations for Planning Commissions, Energy Committees, and Conservation Commissions around Chittenden County and hosted two trainings at our offices focused on the Act 174 energy planning standards. In total, between 2016 and 2017, CCRPC staff presented to 16 of our member municipalities. Additionally, CCRPC formed an Energy Sub-Committee to inform the development of the Plan. The Sub-Committee was comprised of a diverse group of municipal representatives with knowledge of various aspects of energy planning. The Energy Sub-Committee guided the development of the energy sections.
- CEDS: comment period was open from November 17, 2017 to December 8, 2017. 55 comments were received.
- MTP: comment period was open from December 18, 2017 to January 5, 2018. 65 comments were received.

These comments and how they were addressed are included at the end of this Supplement. ~~were incorporated where applicable.~~ Following incorporation of those edits, CCRPC warned the first public

hearing draft. Municipalities and state agencies were notified on January 22, 2018 and the first public hearing was held on February 21, 2018. Approximately 100 comments were received. These comments and how they were addressed are also included at the end of this Supplement. Finally, CCRPC notified municipalities and state agencies of the second public hearing draft and held the second public hearing on May 16, 2018.

The 2018 ECOS Plan was adopted by the CCRPC on June 20, 2018; and the CEDS component of it was also adopted by GBIC, as the official CEDS Committee.

There was also a minor ECOS Plan amendment in 2016 to better address a few statutory requirements. Only a few sections of the Plan were updated at that time.

Original 2013 ECOS Plan Process

The Chittenden County Regional Planning Commission (CCRPC) is charged by the State of Vermont with preparing a regional plan at least every eight years to protect the County's resources and to guide its development. The CCRPC is also charged with establishing a Metropolitan Transportation Plan every five years to address the long term transportation needs of Chittenden County. The Greater Burlington Industrial Corporation (GBIC) is charged with establishing a Comprehensive Economic Development Strategy (CEDS) every five years to establish economic development priorities for Chittenden County. An opportunity to update all three regional planning documents with one process became available when the region received a Partnership for Sustainable Communities grant (a partnership of Federal Housing and Urban Development, Environmental Protection Agency, and US Department of Transportation). The ECOS Plan *is* the combined Chittenden County Regional Plan, Metropolitan Transportation Plan and Comprehensive Economic Development Strategy.

The ECOS grant allowed CCRPC and GBIC to significantly expand both the depth of analysis and public engagement in developing a unified Regional, Transportation, and Economic Plan for Chittenden County. Beginning in March 2011, 65 partner organizations and many others have gone through a five phase process to develop this Plan (see below). All participants signed a memorandum of understanding agreeing to participate in the process, and to review the work with their individual organizations that they were representing. In addition, GBIC formed a CEDS committee composed of the GBIC board and Cynosure board members. The composition of this committee was intended to comply with EDA requirements for overseeing the preparation of a CEDS.

The ECOS Planning process started with the agreement of several key principles: transparency of process, setting priorities at each step, and accountability. Additionally, there has been a focus on building on previous planning work rather than starting from scratch, as much great work has already been done; and there has been a strong emphasis on community engagement.

The results of this collaborative process can be divided into two parts: analysis and actions. The first part (Supplement 2, the [Analysis Reports](#) and the ECOS Scorecard) looks at community goals, with an analysis of our existing situation, and establishes key indicators to measure our progress on an annual basis. Out of that process came a list of 33 concerns. The second part (the main part of the ECOS Plan) looks at the choices we have to address these needs and recommends priority strategies and actions with a focus on implementation.

There is a commitment to annually measuring the community indicators to see if we are achieving our goals and also measuring our collective performance in implementing the actions. This is similar to the Results-based Accountability Model™ that is used by United Way and many other organizations.

The specific process the ECOS Steering Committee and partners went through to develop this plan is summarized below.

1. Goals (found in Supplement 2) – based on the 60 existing planning documents.
 - a. ECOS Steering Committee Retreat – Held on May 25, 2011 to vet the Draft Goal Statements; there were 67 participants.
 - b. Public review from July 14 to September 30, 2011 including sub-committee reviews resulting in 123 comments from 65 groups/individuals.
 - c. Vision, Principles, and Goals were approved by the ECOS Steering Committee on October 26, 2011.
2. Analysis (referenced in Supplement 2, specific reports are here: <http://www.ecosproject.com/plan/sector-analysis/>)
 - a. Technical experts were brought in to analyze topic areas including economy, housing, land use and transportation, energy, natural resources, public health, education, and climate change. It is important to note that the land use and transportation analysis report is based on a significant scenario planning exercise conducted by the CCRPC (CCMPO at that time) from 2008 to 2010. Over 900 people participated in the workshops and follow-up survey.
 - b. Public review from November 15 to December 31, 2011 resulting in 686 comments from 18 individuals/groups. At the same time the technical experts and sub-committees continued to review and improve the analysis reports.
 - c. Analysis Reports were accepted by the ECOS Steering Committee on January 25, 2012.
3. Indicators (referenced in Supplement 2, found in the ECOS Scorecard: <https://app.resultsscorecard.com/Scorecard/Embed/8502>)
 - a. The University of Vermont Center for Rural Studies assisted with creating a possible list of indicators that will help monitor our progress toward goal attainment on an annual basis.
 - b. The draft Indicators were released for public review from February 1 to March 16, 2012. Over 400 comments were received.
 - c. The Interim Indicator Report was accepted by the ECOS Steering Committee on April 25, 2012.
 - d. The ECOS Steering Committee, CEDS Committee, CCRPC's Long Range Planning Committee and sub-committees (Natural Systems, Transportation, Social Community, Health, Education, Climate, Economic Development, Energy, and Housing) reviewed and recommended revised Indicators between July and September, 2012.
4. Plan Priorities (found in the main section of the 2018 ECOS Plan)
 - a. Public engagement activities managed by Burlington City Arts were conducted from June through August to gather more community input on concerns and strategies for addressing those concerns. 130 hours of public engagement took place in these efforts with over 600 people participating. See more detail about these activities below.
 - b. In order to connect with as many diverse constituents as possible, CCRPC's Equity Coordinator, met with representatives from community and issue-oriented groups and

organizations whose priorities are to serve marginalized communities. Input from over 600 people has been collected over the eighteen month process. See more detail about this public engagement below.

- c. The ECOS Steering Committee, CEDS Committee, CCRPC's Long Range Planning Committee, sub-committees and partners developed concerns and recommended strategies and actions between July and October, 2012. The concerns are listed at the end of Supplement 2. Over-arching strategies and actions are in the main section of the 2018 ECOS Plan.
 - d. These concerns, strategies and actions were incorporated into the Discussion Draft of the ECOS Plan, which was reviewed by the public between November 15 and December 31, 2012. A specific public engagement website tool was created to get direct feedback on the strategies and actions. Approximately 400 people participated - 130 comments were made, 2800 votes were cast. The most favorable responses were related to the water quality, planned development, and economic development strategies. Direct discussions were also held with each municipality's elected body from November, 2012 through January, 2013.
5. Plan Implementation
- a. The ECOS Steering Committee, CCRPC's Long Range Planning Committee and sub-committees and partners developed draft ECOS Criteria for prioritizing ECOS Grant projects between April 25 and July 25, 2012.
 - b. A request for proposed ECOS Grant projects was released on August 1, 2012 with proposals submitted by September 15, 2012. 55 grant applications were received for a total request of \$2,205,537 and a total proposed investment of \$4,274,715.
 - c. The ECOS Steering Committee awarded grant funds to eight (8) projects, for a total of \$280,000 on October 24, 2012. These projects were referred to as "Funded Vital Projects" in the actions section of the original 2013 ECOS Plan.
6. ECOS Plan Adoption
- a. The revised Draft ECOS Plan was approved by the ECOS Steering Committee on January 30, 2013 and recommended to CCRPC and CEDS Committee for adoption.
 - b. The CCRPC Executive Committee, on behalf of the full Board, approved the first Public Hearing Draft on February 6, 2013. The second Public Hearing Draft was approved by CCRPC and the CEDS Committee on April 17, 2013.
 - c. Public hearings were held by CCRPC on March 20, 2013 and May 22, 2013. Both of these hearings were preceded by 30 day public comment periods.
 - d. The Chittenden County ECOS Plan was adopted by CCRPC on June 19, 2013 and by GBIC/CEDS Committee on June 25, 2013.

Community Engagement Specifics

Community engagement is the foundation of the ECOS Plan. Meaningful community engagement breaks down silos and shrinks the distance between people from diverse and divergent perspectives, expertise, and experience. In order to build a vision and create a plan that leads to equitable access and opportunities for everyone, engagement must include people of all income, racial, and ethnic groups, with particular attention to groups that have been historically left out of the public policy decision-making processes. Intentional and innovative methods need to be developed that foster inclusion of and engagement by low-income communities and communities from underrepresented racial and ethnic groups.

Meaningful community engagement is not a one-time interview or survey; it is the development of an ongoing relationship with a continuous loop for input and feedback on decisions and outcomes. Successful community engagement leads to transformative engagement where democratic mechanisms are created to ensure that shared power and decision-making control are vested in marginalized communities.

As in the rest of the country, demographics in Chittenden County are dramatically changing. While the White, non-Hispanic population has slowly grown about four percent from 2000 to 2010, the population of underrepresented racial and ethnic groups has grown at a much more rapid pace, most over fifty percent. Chittenden County also has a growing population of those who make under 200% of the federal poverty level. (See <http://aspe.hhs.gov/poverty/index.cfm>.) Due to these changing demographics, it is critical to establish inclusive methods for outreach and meaningful engagement so we may achieve greater equitable outcomes for our region. In order to connect with as many historically underrepresented constituents as possible, CCRPC's Equity Coordinator met with individuals from community and issue-oriented groups and organizations whose priorities are to serve marginalized communities. The Equity Coordinator also met with key informants and informal leaders of various underrepresented ethnic and cultural groups. Input from over 600 people from marginalized communities has been collected over an eighteen month process. An initial large gathering of representatives from diverse cultural groups took place on September 24, 2011 to introduce the ECOS project and invite their input and participation. Follow up meetings for input and feedback have included individual meetings, personal interviews, focus groups, and various gatherings. Input has been collected from people in the following groups: persons of various socioeconomic statuses, diverse racial and ethnic communities, the aged and the young. New Americans that participated include immigrants from: Bosnia, Bhutan, Burundi, the Congo, Iraq, Kenya, Russia, Somali, including both Somali Bantu and ethnic, Sudan, Turkey, and Vietnam. The Equity Coordinator ensured that feedback was continuous through the development of this Plan.

In addition, the ECOS Project teamed-up with organizational partner Burlington City Arts to do outreach and community engagement. The goal was to learn about residents' priorities for initiatives – “**What** should we do and **who** should do it? – by engaging community members in different creative endeavors as a means to reflect on what's important to them: what they like about living here, and what they would like to see change. Rather than conducting a survey, this creative, qualitative approach was meant to explore peoples' ideas and feelings about the institutions they interact with and their surroundings.

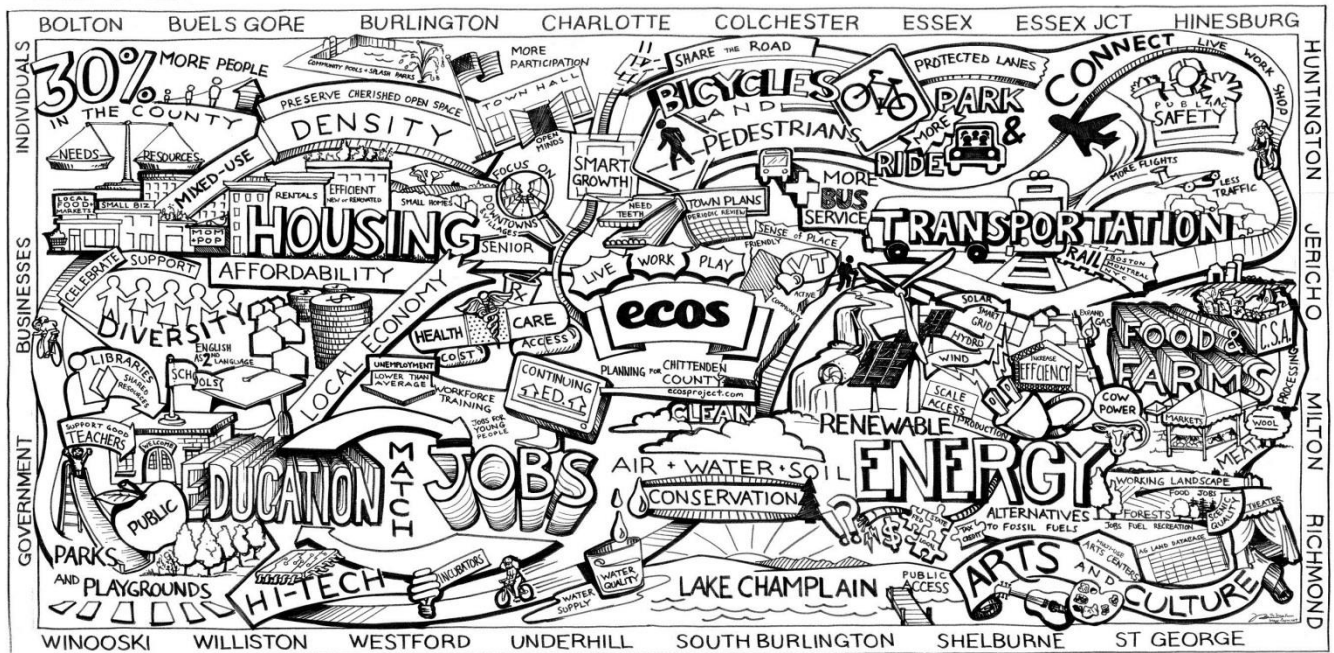
WHAT WE LEARNED

It's not surprising that most people who live here – whether young, old, new comer or 7th generation – all care about similar things: protecting the environment and our open lands; affordable housing; a variety of transportation concerns, including a desire for more busses and bike paths; access to health care, good schools and job training; and access to healthy foods. From the works on display, you'll see these themes expressed in different ways. The ECOS Project will now take all this input, and integrate it into the project's priorities moving forward.

The Burlington City Arts engagement activities included:

❖ Community-created murals

- **WHAT:** We went to four different towns (we couldn't go to all 19!) and conducted workshops with residents.
- **PROCESS Part I:** We led them through a series of exercises and discussions, where their thoughts and ideas were visualized live by illustrator Matt Heywood. Then we asked them to indicate their priorities by adding colored stickers to the mural indicating who (Individuals, Businesses or Government) they thought should do what.
- **PROCESS Part II:** Then we took those murals out into the public – to Church Street during the Discover Jazz Festival, and to the Champlain Valley Fair – and asked passers-by to draw on the murals, indicating what their priorities are for the County.
- **PROCESS Part III:** Illustrator Matt Heywood then took all of the original drawings and synthesized them into a single work, which further reflects the threads of the conversations and reinforces the themes discussed.



Mural by Matt Heywood, The Image Farm

❖ Community Portraits

- **WHAT:** While Chittenden County's growth includes many people from many places, a good number of them are "new Americans," who have often come to this area because of difficult situations in their homelands. The immigrants have tended to concentrate in Burlington and Winooski, though previous influxes of new comers have also settled in Essex and South Burlington, among other towns.
- **PROCESS:** We recruited photographer Dan Higgins to learn about the interests and concerns of different groups of New Americans, who are in different stages of assimilation into our communities. The series of portraits are the result of his sensitive and generous time with people, who invited him into their world to capture their current experience. The words that accompany the exhibit are their responses to the question of what works, what doesn't work, and, from their perspectives, what could be improved in the Chittenden County of the future.

❖ Youth Creative Writing

- **WHAT:** The decisions we make now are going to be inherited by our children, and so we wanted to find out what young people are thinking about the future, and what is important to them.
- **PROCESS:** We partnered with the Young Writer's Project to create a prompt for their engaged community of young writers, asking them "What does 2035 look like to you?" The three winning entries and two honorable mentions can be found on the ECOS website. The winning three pieces are also recorded by the authors.

2013 ECOS Steering Committee Members

Town of Bolton

Rodney Pingree, Leslie Pelch

Town of Buel's Gore

Garret Mott

City of Burlington

Miro Weinberger, Peter Owens, David
White, Bill Keough, Andy Montroll,
Karen Paul, (Former Participants Bob
Kiss, Larry Kupferman)

Town of Charlotte

Charles Russell, Marty Illick

Town of Colchester

Marc Landry

Town of Essex

Linda Myers, Irene Wrenner, Max Levy

Village of Essex Junction

Jon Lajza, Lori Houghton

Town of Hinesburg

Andrea Morgante, Joe Colangelo

Town of Huntington

Edmund Booth

Town of Jericho

Catherine McMains, Tim Nulty, Kim Mercer

Town of Milton

Lou Mossey, Lori Donna

Village of Richmond

Geoffrey Urbanik (Former Participant Erik
Filkhorn)

Town of St. George

Phil Gingrow

Town of Shelburne

Bob Roesler, Jim Dudley

Town of South Burlington

Rosanne Greco, Sandra Dooley (Former
Participant Sandy Miller)

Town of Underhill

Steve Owen, Dick Albertini, Kari Papelbon

Town of Westford

Dave Tilton, Suzanne Blanchard

Town of Williston

Ginny Lyons

City of Winooski

Megan Moir, Tom Buckley

AARP

Jennifer Wallace Brodeur

Alpha & Omega Christian Center

Oscar Hernandez

Association of Africans Living in Vermont

Yacouba Bogre

**Burlington City Arts*

Doreen Kraft, Sara Katz

Burlington Legacy Project

Jennifer Green (Former Participant Margaret
Bozik)

Champlain Housing Trust

Michael Monte, Brenda Torpy

**Champlain Valley Office of Economic Opportunity*

Jan Demers, Ted Wimpey (Former Participant
Kevin Stapleton)

Champlain Water District

Jim Fay, Bernie Lemieux

Chittenden County's Reading to End Racism

Denise Dunbar

*Chittenden County Regional Planning Commission
(MPO)*

Michele Boomhower

Chittenden County School Superintendents

Elaine Pinckney, Jeanne Collins

Chittenden County Transportation Authority

Jon Moore, Aaron Frank, Meredith Birkett

Chittenden Solid Waste District
Tom Moreau

Fletcher Allen Health Care
Penrose Jackson

**Greater Burlington Industrial Corporation (GBIC)*
Frank Cioffi, Curt Carter, Seth Bowden

Home Builders and Remodelers Association of Northern Vermont
Amanda Ibey (Former Participant Joe Sinagra)

IBM
Thom Jagielski

Intervale Center
Travis Marcotte, Mandy Davis

Just Transformations
Denise Dunbar

Lake Champlain Basin Program
Jim Brangan, Bill Howland

Lake Champlain Regional Chamber of Commerce
Tom Torti, Dawn Francis

Local Motion
Chapin Spencer, Brian Costello

Northern Vermont RC & D
Charlie Baker

Northwest Regional Planning Commission
Catherine Dimitruk, Katelin Brewer-Colie

SerVermont
Hal Colston

**Smart Growth Vermont (became part of Natural Resources Council)*
(Former Participant Faith Brown)

Tetra Tech ARD
Lindsay Reid

United Way / Champlain Initiative
Martha Maksym (Former Participant Barry Lampke)

**University of Vermont*
Joe Speidel, Elizabeth Reaves

University of Vermont Geography Department

Vermont Agency of Commerce & Community Development
Noelle MacKay, Faith Ingulsrud (Former Participant Joss Besse)

Vermont Agency of Human Services
Jane Helmstetter

Vermont Agency of Natural Resources
Deb Markowitz, Peter LaFlamme

Vermont Agency of Transportation
Amy Bell, Sue Minter, Chris Cole

Vermont Center for Independent Living
Sarah Launderville, Janet Dermody

**Vermont Department of Health*
Heather Danis, Amy Malinowski

Vermont Department of Emergency Management
Joe Flynn

**Vermont Energy Investment Corporation (VEIC)*
Scott Johnstone, Alison Hollingsworth, Scudder Parker

**Vermont Housing Finance Agency*
Sarah Carpenter, Maura Collins, Leslie Black-Plumeau

Vermont Interfaith Action
Debbie Ingram, Charlie Rathbone

Vermont Legal Aid
Eric Avildsen, Rachel Batterson

**Vermont Multicultural Alliance for Democracy*
Sara Martinez de Osaba

**Vermont Natural Resources Council*
Brian Shupe, Kate McCarthy

Vermont State Refugee Coordinator
Denise Lamoureux

Winooski Valley Park District
Yumiko Jakobcic

Pablo S. Bose

Senator Bernie Sanders' Office
Jeff Munger

Senator Patrick Leahy's Office
Ted Brady

Rep. Peter Welch's Office
Megan Sullivan

Other Contributing Organizations:

**Garnet Consulting Services, Inc.* – Mark Waterhouse

**LandWorks* – David Raphael & Natalie Steen

Sp!ke Advertising – Ken Millman & Becca Burns

The Image Farm – Matt Heywood

* = Organizations that consulted and/or contributed to analysis reports.

Former CCRPC Staff that played a large role in the ECOS Plan:

Andrea Grayson, Communication Manager

Sara Osaba de Martinez, AmeriCorps

Public Comments Received

	A	B	C	F	G	J
1	2018 ECOS Plan Public Comments					
2	Category	Page #	Comment	Commenter	Municipality	Response
3	CEDS Draft	4	If we are looking for assets, the CVTIP / Global Foundries campus have an "industrial strength" waste treatment plant - it is one of a kind in Vermont. Understanding this can help us attract businesses that need "high test" waste treatment. I know that Global Foundries is interested in maximizing the value of this important asset.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. This is a good point. We have listed the Global Foundries campus as a strength in general, and pointed out some of these specifics.
4	CEDS Draft	5	I think there should also be more push for skilled craftsmen (e.g. carpenters, plumbers, mechanics, etc) since many of those jobs are being ignored in favor of college education. Also, I think there should be less of a push for college degrees, and more of a push for teaching people on the job and use work experience to preclude paper degrees. A lot of older people, and even young people, can't afford college, or have (had) circumstances that have not allowed them to get degrees. These people are probably even better employees than those who have degrees and expect to make a lot more money than they are going to get.	Jennifer		Thanks for making this point. We have added more information about vocational and on-the-job training to our list of actions at the end of the CEDS.
5	CEDS Draft	5	Could we talk about increasing broadband options in Chittenden County to attract these workers. In Essex, we are hopeful that BT will expand out Route 15, giving businesses and residents an additional broadband option. This potential might fit into the plan?	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. Several people made points about discussing the need for increasing broadband options in the county, and we will increase our discussion of this topic in a general way. Given the current uncertainty about the future of Burlington Telecom, we don't plan to identify it as a specific project right now. We'll keep an eye on this for future CEDS edits though.
6	CEDS Draft	5	It is critical that SOV and CCRPC take steps to quantify the impact of remote works. I'm thinking the influx of remote workers may equal the addition of a major employer (or two) annually. Would be great to know. If this is true, then we should have a more proactive attitude about these workers.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. We added ACS data on people who work at home. Strengthened discussion of internet expansion also addresses this issue.
7	CEDS Draft	5	I don't see any discussion or rail - either commuter or freight or passenger. In Essex Junction and Essex, this is key. Right now, Essex is on a line that meets National Rail Standards - which gives us a competitive edge. We would like to see that acknowledged and highlighted. Also, the land around the CVTIP (Champlain Valley Technology and Innovation Park) - the Global Foundries Campus - can host rail spurs. VRAN has a plan to develop this. The CCRPC plan should recognize this as an opportunity, I believe. And please use the term CVTIP in this plan - Global Foundries is trying to add more businesses to their campus as well as develop 300,000 sf more of light manufacturing on the "North 60"!!	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	We changed the name of the Global Foundries campus to CVTIP, thanks for the tip! As for the rail issue, we have an extensive discussion of rail in our Metropolitan Transportation Plan, which is another chapter of the ECOS Plan. We provided a summary and let readers know where they can find more information. We also added text highlighting that companies being able to take advantage of the region's rail infrastructure is an important economic benefit.
8	CEDS Draft	5	A focus on narrowing/eliminating the Digital Divide is a key to engaging the retirement population & New American population. 1) give affordable access to high-speed internet and computers 2) give affordable access digital literacy 3) use these programs to promote workforce development, education, better health outcomes, and civic engagement.	Abigail Tykocki		Thanks for making these points, we included an action specifically about internet access in the action list.
9	CEDS Draft	5	Also, consider adding CCV - who are doing basic STEM education to prepare students for the workforce. Such as remedial math education to prep folks for tech jobs.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great suggestion, we added them.

	A	B	C	F	G	J
2	Category	Page #	Comment	Commenter	Municipality	Response
10	CEDS Draft	5	Add VTC to list of higher education - with their Williston campus, VTC is addressing education associated with advanced manufacturing. Essex has proposed a program to VTC that would mirror a "Center of Excellence" (like the Emergent Media Center at Champlain) where students would be paid to produce parts for manufacturing companies. This is still under consideration.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great suggestion, we added them.
11	CEDS Draft	5	This effort should be linked to building stronger relationships with STEM employers - more internships / apprenticeships.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. We added more information about vocational and on-the-job training to our list of actions at the end of the CEDS.
12	CEDS Draft	6	If we are going to mention retail sales, it might be important to highlight that Essex is the VT leader in industrial jobs / advanced manufacturing. I believe Burlington is #2. This data is from VT Business Magazine - several years ago. If interested, I have a Powerpoint with the reference.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	We added data from this reference. Thanks for providing it!
13	CEDS Draft	8	Global Foundries is now optimistic that the emergence of the autonomous car may be a new user of the chips made here in Essex. Adding that information to the report might add a positive note. That said, yes, there is uncertainty. Has the CCRPC thought about undertaking a planning process that would address potential uses for the Global Foundries Campus? I know no one wants to suggest they might leave, but shouldn't we be thinking about the future?	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great question. We funded GBIC to do master planning for Global Foundries through the ECOS plan implementation, and that was completed in 2013. I have sent the report to you. The issue of which chips will be used in autonomous cars is not definite enough to include in this draft of the CEDS, but we'll keep on eye on it for future drafts.
14	CEDS Draft	13	In Essex we are seeing a cluster of bio-tech companies emerging. Is this included in #5 - Health Care & Wellness.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great question. These would certainly be included in our key sectors, but depending on the company's work it might be classified as "high value-added manufacturing" or "clean tech/green tech" instead.
15	CEDS Draft	18	Also, note that GBIC has declared Essex as the last Chittenden County source of significant amounts of undeveloped and zoned commercial / industrial land. Based on what I know, I agree with Frank and Curt.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion.
16	CEDS Draft	18	This comment also applies to #2 - Industrial Site Locations below.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion.
17	CEDS Draft	18	Admittedly biased, but I think that the Essex brand also deserves mention - as Vermont's second largest municipality, home to and steward of the backbone of the Vermont economy (GlobalFoundries), the leader in industrial jobs in VT (where Global makes up only about half of the tech / industrial jobs). I have a PowerPoint that documents this job base.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. We added language to the part of the plan that discusses the Vermont and Burlington brands, stating that it is important to support communities working to build brands (Essex, Colchester, etc.). Additionally, we added an action that explains the connection between the CEDS and our land use strategy: 80% of growth in 20% of land.
18	CEDS Draft	19	Is it possible to recommend expansion of BT to surrounding towns - to create more options for consumers, both business and residential?	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Please see the response above.
19	CEDS Draft	19	There is an example of Essex that makes this point perfectly. Many of our innovators were not born here. Also, do you want to mention the rise of co-working / maker spaces specifically? This write up doesn't seem to capture the great work done in BTV - and some of the surrounding towns.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for this suggestion. We added more discussion of co-working and maker spaces to our discussion. Thanks!

	A	B	C	F	G	J
2	Category	Page #	Comment	Commenter	Municipality	Response
20	CEDS Draft	19	An FYI - Accelerate Essex is now working collaboratively with the Essex Hub for Women & Business. This group recently sponsored steAmfest - a creative economy festival - in Essex.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for the information!
21	CEDS Draft	5	I think there should also be more push for skilled craftsmen (e.g. carpenters, plumbers, mechanics, etc.) since many of those jobs are being ignored in favor of college education. Also, I think there should be less of a push for college degrees, and more of a push for teaching people on the job and use work experience to preclude paper degrees. A lot of older people, and even young people, can't afford college, or have (had) circumstances that have not allowed them to get degrees. These people are probably even better employees than those who have degrees and expect to make a lot more money than they are going to get.	Jennifer		Thanks for this suggestion. We added more information about vocational and on-the-job training to our list of actions at the end of the CEDS.
22	CEDS Draft	5	How about engaging young professionals to keep them in the state?	Andy Watts		Great point, we added this to the list of opportunities to complement our discussion of engaging retirees and engaging New Americans.
23	CEDS Draft	5	Is lack of local control a detractor? Being a Dylan's rule state means innovation of governance is limited.	Andy Watts		Great question. No one has specifically raised Dillon's Rule as a concern in our process, but many people have raised concerns about Act 250 and the difficulty of getting permits for development. The plan discusses Act 250-related concerns so I think that covers the issue of local control.
24	CEDS Draft	10	Two of my sons graduated from high end schools but have had to leave the state to find a job. I am frustrated by comments that we lack a skilled workforce.	Andy Watts		Thanks for bringing this up. We will add language to this section to explain that, while there are a number of very well educated workers in the region, there is often a mismatch between the skills that workers have in the county and the specific high and medium skill jobs that employers wish to hire for.
25	CEDS Draft	11	VTC has expanded it's Manufacturing Lab in Williston - https://www.mfgday.com/events/2017/vermont-tech-3	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great suggestion, we added them.
26	CEDS Draft	12	Perhaps we could say this differently. Instead of using the Global Foundries vs. small entrepreneurs language, I would prefer to see this talked about in the positive. For example, several of our most successful business ventures started very small and grew into the area's major employers - such as Ben and Jerry's and Dealer.com and IDX. This removes the negative connotation - and no one I know things we are looking for the "next" IBM. Just a thought.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great point, we changed the tone of this section.
27	CEDS Draft	11	Is it possible to acknowledge other initiatives outside of BTV. For example, Hinesburg has a new co-working space. And Accelerate Essex and the Essex Hub for Women and Business are initiatives that are currently serving the region today. If we just include Burlington projects, I'm afraid we run the risk of creating an impression the entire county is sitting her watching initiatives in Burlington.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Great suggestion, we added them.
28	CEDS Draft	11	Is this a place to mention Burlington Telecom's expansion mandate that is tied to the sale being finalized right now. I know that in Essex we are hoping to entice / encourage the new owner to create another broadband option in our community.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Please see comment above.

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29	CEDS Draft	18	I am not sure this is true in Essex - which means it may not be true for the county. We have significant zoned land that is designed for commercial / industrial development. It would be great to the plan to acknowledge this. We have been sitting on this land for decades - so I'm not sure development is imminent. That said, a recent sale means this land may be developed for the next 10 to 20 years. Could this plan reflect this fact?	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	Thanks for raising this point. What we're trying to convey here is that while there is land that is zoned industrial, it has not gone through the process to get Act 250 approval, permits like water and wastewater, or local building permits (unlike an industrial park that is considered "ready to build"). Our latest draft clarifies this.
30	CEDS Draft	18	Where you thinking about the land available in Saxon Hill Industrial park when this was written? This land is not affiliated with any existing company - that would be the Global Foundries site, where there is at least the potential for 300sf of light industrial on what has been called the North 60.	Greg Morgan, Chair, Essex Economic Dev. Commission	Essex	This is referring to the Global Foundries site, but we changed it to include other existing industrial areas as well.
31	CEDS Draft	5	Raised the point that college graduates often do not fully utilize their degrees, but are saddled with debt.	Darren		Please see response to Kathi below.
32	CEDS Draft	5	I agree we need to promote the skilled craftsmen as we hear from our manufacturers about the challenges facing their future workforce. I realize VTC and VMEC are working on this, but there is much more we need to be doing.	Kathi		Thanks for this suggestion. We added more information about vocational and on-the-job training to our list of actions at the end of the CEDS.
33	CEDS Draft	6	Would it be relevant to include the percentage of the county population employed by federal, state ,regional, and local governments including public schools?	Andrea Morgante		Thanks for this suggestion. 16% of jobs in Chittenden County are in the Government sector (this includes public school employment). We made sure this is in the text and in our indicators
34	CEDS Draft	10	In the section where the proportion of jobs within private industry is at 54% in 2016 what jobs make up the remaining 46%? Of that what percentage are public sector jobs? see previous question	Andrea Morgante		Great question. The question is referring to this statement: "Between 2012 and 2016, Chittenden County's employment base has remained concentrated within five private industry sectors: healthcare and social assistance; retail trade; manufacturing; accommodation and food service; and professional, scientific and technical services. However, the proportion of jobs in these sectors has dropped from 71% of total employment in the County in 2012 to 54% in 2016." The other 46% of employment is spread through various sectors, including 16% of the total workforce in the public sector. We also added a graph showing how employment was distributed by sector in 2016. (See above also)
35	CEDS Draft	18	Colchester is the only community in VT to be named Money Magazines best places to live in America!!	Kathi O'Reilly		Thanks for letting us know. We added language to the part of the plan that discusses the Vermont and Burlington brands, stating that it is important to support communities working to build brands (Essex, Colchester, etc.). Additionally, we added a section in the implementation section that explains the connection between the CEDS and our land use strategy: 80% of growth in 20% of land.
36	CEDS Draft	18	Forgot to mention received that honor twice, 2015 and 2017	Kathi O'Reilly		Please see above.
37	CEDS Draft		There is a lot of great information and good analysis in here. However, the CEDS, in general, seems a little skewed towards Big, Traditional, Industrial Employers in Industrial Park settings and doesn't seem to cover as much in terms of how the economy is changing around us (beyond the basic data which tells macro-level stories, but perhaps not the flows within those macros trends). The assessment is a little thin on analysis of and future actions related to our downtowns & the types of business that are growing in the 21st Century in Chittenden County. As one small example, the CEDS says that tech industrial are a big area of growth. Do we know whether the "tech type" businesses want to be in industrial parks, or do they want to be in places like Pine Street, similar to national trends? If that's the case, how are we supporting development that reinforces these strengths of our economy and supporting the needs of the businesses. More broadly, the CEDS doesn't seem to quite capture the vibrant elements of the economy, and any threats thereto.	Paul Conner	South Burlington	This is a good point. We added discussion to draw a clearer for connection for readers between this section, which is focused on larger companies and value added products, and the economic development-related strategies elsewhere in ECOS. The most important one here is supporting our downtowns and villages (our strategy of 80% of growth in 20% of land area). There will be edits in our action section and the introduction to the CEDS. At the LRPC meeting on 12/14, it was decided to add in encouragement for industrial operations to re-use land and/or existing buildings, instead of building on greenfields. This also addresses the fact that there is industrial land that's already zoned for industrial, but not being used for it.

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38	CEDS Draft	3, SWOT Analysis	This section doesn’t mention much about the role of VT-based businesses, and VT-grown businesses, which at least appear to play a more significant role here than elsewhere in the Country. Is that the case? If yes, it should be listed in here.	Paul Conner	South Burlington	Thank you for suggesting this, but unfortunately, we were unable to find data specifically showing the different economic impacts of "home-grown" businesses and national chains.
39	CEDS Draft	3, SWOT Analysis	Food economy (ag, and value-added, such as beer production, Lake Champlain Chocolates, or food tourism) isn’t discussed much in here	Paul Conner	South Burlington	Thanks for this suggestion. This was strengthened.
40	CEDS Draft	3, SWOT Analysis	Tourism economy in general isn’t discussed much	Paul Conner	South Burlington	Thanks for this suggestion. This was strengthened.
41	CEDS Draft	6, Economic Base Analysis	Paragraph 2 uses the word “disquieting.” It’s the second use of this term in the first 6 pages. It’s a very word that sends a strong message of concern about the economy, especially when repeated. Is that the intent?	Paul Conner	South Burlington	Thanks for this suggestion. Disquieting is now only used once.
42	CEDS Draft	6, Economic Base Analysis	Very little mention about the role, function, or operation of our villages and downtowns, except Burlington being mentioned. Surprising, especially with Winooski’s & Essex Junction’s efforts these past several years.	Paul Conner	South Burlington	Great point, we have added language to bring more attention to the role of the villages and downtowns and beyond Burlington. This is a good way to address the brand comment up above as well.
43	CEDS Draft	6, Economic Base Analysis	Chittenden County’s Place in VT Economy: i. What’s the overall story, or stories, this is telling? ii. Mixing of data that that is national data, rank data within the state, and proportions of the state makes the bullet list difficult to read and/or interpret. Maybe re-organize? iii. Very surprised to see Colchester as #2 retail sales tax data in the state. Maybe double-check? Also, if it is correct, what’s the story that is telling us? (consider which uses pay retail sales vs those that don’t)	Paul Conner	South Burlington	Thanks for this suggestion. We have re-organized for clarity and intent. We double checked the Colchester data and it is correct: http://tax.vermont.gov/research-and-reports/statistical-data/sales-and-use/2016 .
44	CEDS Draft	6, Economic Base Analysis	Employment, Wages and Key Sectors: i. 5th bullet includes a statement that in the past there had been some concerns about a few large businesses being dominant as a problem, the statement then says this is not a problem. In a list filled with data, neither statement here is fact-driven. ii. Is there a way to break out “service-providing industries”? With such a large % of the economy, it would be helpful to break these out into “higher” and “lower” value serve employment iii. Do we have any data about “VT-grown” vs “national outlet” in the services & retail? iv. Top of page 8: The list seems to be heavily weighted towards large employers. Is that telling the Chittenden county story? v. Global Foundries – is the timeframe for the job reduction correct? 4,000 fewer jobs in 2017 than in 2007? Or is this outdated information? vi. Last bullet talks about tech industry growth and key role. Perhaps this bullet should be near the top of this list.	Paul Conner	South Burlington	Thanks for these suggestions. i. Thanks for the comment. These statements are drawn from the economic analyses completed for the ECOS Plan in 2013 and our continued conversations with GBIC. ii. We received some suggestions on how to break down these data and did so to show disparities within certain sectors (see our response to Line 133 below) iii. See above. iv. Yes, the trend of losses in higher wage jobs is true across companies/organizations of all sizes. V. There have been over 4,000 jobs lost between 2001 and 2015 (latest data that we have available. This has been clarified in the text. VI. We moved the bullet
45	CEDS Draft	6, Economic Base Analysis	Competitive Assessment a. Page 11, 6th bullet (Industrial parks). Part of the story here too, is that there is pressure for the remaining industrial land to be used for uses that aren’t strictly industrial (eg office complexes), which could go elsewhere. GBIC, property owners, and communities should work together to assure that industrial parks are reserved for uses that aren’t as compatible with residential, as these are some of the key problems. (same issue also on Page 18)	Paul Conner	South Burlington	Thanks for pointing this out, we added it.
46	CEDS Draft	6, Economic Base Analysis	Page 15, Table: a. Line 1 – embraces complexity. Mentions planning for new industrial parks but does not include support for downtowns	Paul Conner	South Burlington	Please see our response to line 122

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47	CEDS Draft	6, Economic Base Analysis	5. Page 25-26 a. Very positive story to be told here on HS degrees and unemployment. Is there any data to back up the statement earlier that there is a higher % of people who are under-employed? b. Median HH income by Race: is this data correct? Drop of avg income from \$57,567 to \$25,092 in 2 years? That is shocking if accurate.	Paul Conner	South Burlington	Thanks for these questions. a. Yes, these data are also reported at the statewide level by the BLS. B. These data are from an ACS table. We added a note to this table explaining that the margins of error on this particular statistic are extremely large (+/- \$18K to \$25K), which likely explains the huge drop
48	CEDS Draft	N/A	Deb is experiencing significant challenges in obtaining permits for her new business, for which she is building a new facility. She's concerned that the CEDS doesn't reflect the challenges she's facing in that, or the challenges that small rural towns in Chittenden County face. While the local permitting process in Richmond was easy enough, the state permits (Act 250, water and wastewater, wetlands, etc.) are "bleeding her dry," and it's especially bad because she hasn't started making any money from the business yet! She wants an "ambassador" who can walk people through the state permitting process and help people understand all the permits they will need, what the timeline will be and the expected cost.	Deb Shelby	Bolton	Thanks for this suggestion. Economic development coordinators in Winooski and South Burlington agree that this is a problem and that an "ambassador" position might be helpful. We added this as a component of our action related to participating in the Act 250 Commission effort.
49	CEDS Draft	N/A	In a board meeting, Chris made a comment that we should look for a better measure of how affordable the region is for an average family.	Chris Shaw		This is a very good suggestion, but we have been unable to find a good index for this. We will continue reporting on housing affordability and whether the average household can afford the average housing/transportation costs in Chittenden County, but we have not been able to find a reliable source for data on tax and permitting fee burden in the county, and unfortunately do not have the staff capacity to do the primary data collection.
50	CEDS Draft	ECOS Scorecard	Average Wages for All Businesses: First, overall average wages masks the large differences between and within sectors. For example, the detailed graph shows the 2016 average wage for Education and Health Services (\$51,303), but there are very significant differences within the super sector. Note: Some county data is confidential because of too few employers, but the statewide data tells the story. Look at the differences between large components such as Social Assistance (\$21,428) and Hospitals (\$59,942), or Nursing & Residential Care Facilities (\$31,484) and Colleges & Universities (\$57,451). The same is true for most of the super sectors (e.g., look at retail compared to utilities; both in the same super sector).Since you can't disaggregate "Health Care & Social Assistance" at the county level, I encourage you to add a very brief note about the huge variances within that super sector. You have the figures in a bar graph, but it's a bit confusing since the data is not shown lowest to highest. I would use one bar graph for the latest year and add a second graph with percent growth over time. This would make the data more accessible. Average wage: You might consider reporting the figure for the private sector, rather than the overall. All of the goals and strategies are directed to the private sector. That's what I did in the graph above.	Doug Hoffer	Burlington	Thanks for the suggestion! We will disaggregate these data where possible and provide context in the narrative, and add public sector wage data. The Scorecard software we use is tailored to line graphs generally, but we will investigate adding more bar graphs as suggested.
51	CEDS Draft	ECOS Scorecard	In my view, it is preferable to report real (inflation-adjusted) income figures.	Doug Hoffer	Burlington	Thanks for pointing this out. The income figures are adjusted for inflation, and we added language to the scorecard to make that clear.
52	CEDS Draft	ECOS Scorecard	It is not optimal to use single year data. Multi-year figures are much better because they smooth out single-year anomalies due to limited sample size. Census ACS reports this data.	Doug Hoffer	Burlington	Thanks for this suggestion. We use single year ACS data because they allow us to compare year to year, while 5-year estimates can only be compared in non-overlapping years (ex. you can compare a 1-year 2015 estimate versus a 1-year 2016 estimate, but you can't compare a 5-year 2011-2015 estimate with a 5-year 2012-2016 estimate.
53	CEDS Draft	ECOS Scorecard	There are no measures on income distribution. Data is available from Census, as well as the Tax Dept. I don't find the traditional measure of inequality (Gini coefficient) all that useful (and I don't think it's available at the county level), but there are other data sources that could help show changes over time. For example, statewide tax data allows us to show the percentage of total AGI reported for the top 1% or 5%. The Tax Dept. reports data by town, but the top tier is defined as \$150,000 or more, whereas the statewide data goes up to \$1 million. Nevertheless, you could provide readers with information about the change in the percent of total AGI over time reported by those at \$150,000 or more.	Doug Hoffer	Burlington	Thanks for this suggestion. The newest draft of the CEDS includes data on income inequality.

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54	CEDS Draft	ECOS Scorecard	Poverty: The poverty methodology is decades out of date. See pages 2 and 3 in the report linked below. https://www.census.gov/content/dam/Census/topics/income/supplemental-poverty-measure/sum.pdf Therefore, while we must continue to report it, you have an opportunity to educate citizens about the flaws in the methodology, which explains why eligibility for so many public assistance programs is based on a multiple of the poverty measure (e.g., 150%, 175%, etc.).	Doug Hoffer	Burlington	Thanks for bringing this up, and for your thorough reading of our work! It is much appreciated. We will consider this change as we update the scorecard going forward.
55	CEDS Overview	2	This is a great goal but seems incredibly unrealistic. What campaign? What are the hurdles to lower costs homes? Land prices? Building costs? Zoning?	Tim Loucks		Thanks for your comments. The campaign we're referring to here is the Building Homes Together campaign (http://www.ecosproject.com/building-homes-together/), a partnership between CCRPC, Champlain Housing Trust and Housing Vermont. This campaign has identified a number of challenges, including funding and permitting challenges. Other actions in our full CEDS draft, such as streamlining the permitting process, are intended to address these challenges.
56	CEDS Overview	2	The terminology "affordable housing' is applicable to whom? It's certainly not to those many making less than \$15 per hour. Also the need is really low income housing. There will be an excess of housing for market rate from your proportional calculations.	Barbara Wynroth		Thanks for your comments on the CEDS. You're absolutely right that affordable housing prices vary by income. We use the federal definition: housing is affordable when a household pays 30% of their income or less on housing costs. There is a need for low income housing in the county, but there is also a need for more housing of all types to increase our very low vacancy rates. We chose this proportion with our partners at Champlain Housing Trust and Housing Vermont, and continue to work with those partners on the Building Home Together Campaign (http://www.ecosproject.com/building-homes-together/).
57	CEDS Overview	2	One of our region's truly unique features is our location side-by-side with the largest French-speaking population in the hemisphere. More than a million more native French-speakers live within 2 hours of Burlington than native English-speakers. Capitalize on the opportunity to become the U.S.'s center of French-language study at all academic levels, teach all of our schoolchildren French from Kindergarten through 5th grade, and invite investment by Canadian, French and franco-African institutions and industries.	Steve Norman		Thanks for your comment. The tourism industry in Chittenden County, through the Chamber of Commerce and others, certainly works to cater to French speakers. We support these efforts through our work on the Byways program, which includes French and English interpretive panels at key points around the county. We have revised our tourism actions to emphasize the importance of being welcoming to those who speak other languages, especially French.
58	CEDS Overview	2	There is no mention of healthcare access or cost. The cost will drive many older folks to work longer or to go back to work. These folks will need meaningful work. I don't see loss of workforce as the only impact of an aging population.	Andy Watts		This is a good point. Healthcare is discussed in the Health Section of Supplement 2 in our ECOS Plan, but we added a reference to the CEDS to draw this connection and show readers know where they can learn more.
59	Energy Overview	2	What about natural gas heating? How does that cost compare to the cold climate heat pump cost?	Anonymous		Thanks for your comment. Staff will research data on cost comparisons for each fuel type and will include the data in the next version.
60	Energy Overview	2	[Reply to the above comment] Great question! Here's a complimentary one: assuming natural gas heating is "cheaper", how might we find ways to make heat pumps (local and clean energy) the go-to choice?	Anonymous		Thank you for your comment. Heat pumps do provide air conditioning and the energy which powers a heat pump is "greener" than natural gas. However, in VT Gas's territory heat pumps are a tough sell as saving money with a cold climate Heat Pump (CCHP) is highly unlikely, even if the system you purchased displaces 75% of the natural gas your building consumes during a typical year. In fact, current natural gas prices would need to double in order for most CCHP systems to generate enough savings to pay back your initial investment of between \$3500 and \$5000 in 9 years. See the ECOS Plan Supplement 2 Section 17 for how this comment is addressed in the plan.
61	Energy Overview	2	Where does this data come from, the DPS fuel price report? http://publicservice.vermont.gov/content/retail-prices-heating-fuels	Wayne Maceyka		Thanks for providing the data reference!
62	Energy Overview	2	What percentage of Chittenden homes and residences have access to natural gas?	Tim Loucks		Thank you for your comment. There are 37,073 homes or 57% of homes heating with natural gas. See Supplement 6.
63	Energy Overview	2	What about energy storage strategies as part of this shift to electric?	Tim Loucks		Thank you for your comment. A discussion on energy storage's role has been added to the key issues in Supplement 2 Section 17.

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64	Energy Overview	2	Why no mention of wood pellet heating since the state is promoting this with incentives for wood pellet boilers?	Tim Loucks		Thank you for your comment. The energy overview was intended to focus on the highlights of the enery sections and wood pellet heating has less of a focus given there are little to no siting/land use implications to them. Wood pellet heating is part of the pathway for achieving 90X2050.
65	Energy Overview	2	Natural gas is a fossil fuel so using it doesn't help our renewable energy goals. My guess is that the plan highlights oil because there's good reason to switch from oil to heat pump now. Heat from natural gas and heat pumps costs about the same, so you can't yet recover the cost of installing the heat pumps, but for new construction or a failed furnace, a heat pump would be competitive and a lot of the new construction is using heat pumps	Damon		Thank you for your comment. See Section 17 in the main document for how we addressed the cost competitiveness issue of heat pumps vs. natural gas.
66	Energy Overview	2	Maybe suggest that incentives on the units are contrary to the state goals and they should be removed? Also, a lot of people like the cooling ability that heat pumps have. Last I knew heat pumps in Maine were quite a bit cheaper so our industry still had some learning to do. Catching up to ME's pricing will help.	Damon		Thanks for your comment.
67	Energy Overview		add rooftop solar to target graphics	LRPC		Thanks for your comment. We add this if we continue to use the graphics.
68	Energy Overview		add amount of land area that is in constrained area to circl graphic	LRPC		Thanks for your comment. We add this if we continue to use the graphics.
69	Energy Overview	2	Agreed, and greater incentives for individual homeowners. If people provide their own power there is little need for large farms. Also, increasing public awareness of the incentives that currently exist and, on all new projects, making the sustainable option the default one, while still allowing the homeowner the freedom to opt out should they wish to put in the extra effort required to do so. "Nudge"	Kalin Thompson		Thanks for your comment. Public awareness of incentives is included in the ECOS Action 2.4.a.vi
70	Energy Overview	3	Has floating solar been explored as an option?	Kalin Thompson		Thanks for your comment. No floating solar has been explored. However the region's targets are technology neutral so a utility or municipality has the flexibility to implement various technologies to generate renewable energy.
71	Energy Overview	2	This would be good, but given the rural distribution of most Vermonters, it would still require some commute to get the station. I wonder if the problem lies in the fact that most people already have cars? How can the state incentivize trading them in for electric cars? Otherwise, even if they do buy electric, people will only be adding to their current fleet of vehicles and this won't be changing the ratio very significantly. One possible option might be in parking. If city and business parking for non-electric vehicles is either super expensive or very awkwardly far away from everything no one will want to drive. And this goes for business employees too: let's suppose I get hired to work at Dealer. The company says, "will you be parking a non-electric car?" I say."Yes." They say, "you understand that a monthly fee will be deducted from your paycheck..." If its more than a few thousand dollars a year, that could tip the scale. OR, the government could give tax incentives to businesses based on what percentage of their workforce commutes sustainably. This might give rise to creative solutions, and possibly even have the added benefit of incentivizing a more local workforce (of course, the housing goals would also need to be met).	Kalin Thompson		Thanks for your comment. TDM is supported in the Plan. See the MTP section. Transportation Demand Management (TDM) is using strategies and policies to reduce single occupant vehicles and encourage/incentivize other modes such as walking, biking, ridesharing, vanpooling, transit, and car-sharing. https://www.ccrpcvt.org/our-work/transportation/transportation-demand-management-park-ride/
72	Energy Plan	N/A	Thanks for updating me on this - I'm very interested, especially in conservation in this area. Let me know if there will be meetings open to the public.	Paula DeMichele	Essex	Thank you for your interest. Meeting times for the energy sub-committee and LRPC were provided to Paula at the end of October.

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73	Energy Plan	7	Perhaps this should be saved for the Transportation section, but a reference to electric transit buses (as demoed in Burlington) might be in order here.	Anonymous		Thank you for the comment. See policy statement 2.5.d.IV.3 in the main document of the ECOS Plan.
74	Energy Plan	10	Smart Grid without price signals to allow customers to share in the value of shifting their demand to optimal times (such as those with lower demand or when the sun is shining) will not work. Protections need to be in place for those vulnerable populations who can not shift demand, but transparency in the price of energy at certain times is paramount for Smart Grid to work.	Anonymous		Thank you for the comment. The discussion of price signaling was added to the key issue which focuses on smart grid technology as a mechanism to inspire behavior change. See the ECOS Plan Supplement 2 Section 17
75	Energy Plan	10	Vermont pioneered the energy efficiency model that has been replicated around the globe. Now, let's put the same Market Transformation mechanism to work for transportation!	Anonymous		Thank you for your comment. We discussed that this comment is referring to carbon taxes and also efficiency programs related to vehicles, similar to the way Efficiency Vermont has improved efficiency for electricity.
76	Energy Plan	10	As with Burlington Electric's "Net Zero Burlington" initiative, no one wants to talk about the elephant in the room: natural gas. Can we call out specific steps to get us off the addiction of "cheap" (but costly to the environment) natural gas?	Anonymous		Thank you for your comment. The draft plan already acknowledges that we are challenged with meeting the 90X2050 goal being in VTGAS's territory.
77	Energy Plan	11	YES! Heat local (biomass or PV-fueled heat-pumps) and fuel your car locally (PV-fueled cars) to keep money in the local economy!!!	Anonymous		Thank you for your comment.
78	Energy Plan	11	Don't pellet stoves produce more greenhouse gases than natural gas heating systems?	Scott Pennington		Thank you for your comment. A literature search indicates, that the combustion of wood releases carbon dioxide into the atmosphere, but through the cycle of growing trees, using the wood, and replanting more trees, the carbon dioxide is recycled from the atmosphere. As long as trees are replanted at the same rate they are harvested and used, they take in approximately the same amount of carbon dioxide as is released during combustion. Therefore, using wood for energy does not contribute to climate change by adding more carbon dioxide to the atmosphere. Heating with wood produces less carbon overall as long as it sustainable harvested.
79	Energy Plan	11	Add-on question: how do the new EPA wood stove guidelines or newer (80% efficient) pellet stoves and boilers match up with natural gas from an emissions standpoint?	Anonymous		Thank you for your comment. According to the EPA, natural gas or propane emit less soot and other air pollution than wood stoves.
80	Energy Plan	14	This sort of growth in heat pump use in the C&I sector may be a surprise to the local electric utility. Does it match their projections? Is it even technically possible?	Anonymous		Thank you for your comment. From Robert Dostis at Green Mountain Power" The electric utilities subject to Act 56 are offering innovative products and services to meet the statute and deliver innovation. These electric utilities offer a host of services and programs that encourage strategic electrification to reduce fossil fuel use. For example, BED, in addition to being its own efficiency utility is exploring electric buses to replace old diesel busses. GMP is promoting cold climate heat pumps and heat pump water heaters with a finance to own program. GMP also offers Tesla Powerwall batteries, and when coupled with roof top solar, they increase renewable generation and reliability. GMP's offerings, like electric vehicle charging stations, and mobile control devices for heat pumps and water heaters, not only provide convenience to customers they also allow GMP shared access to these appliances to lower costs for all. VEC is providing incentives for electric vehicles and heat pumps. VEC along with all the utilities are working with their commercial customers to customize solutions for strategic electrification. As these services and programs are being deployed and as they demonstrate value they will not doubt be shared and offered by all the electric utilities. Opportunities in general for strategic electrification in C & I sector is big. Heat Pumps are a definite option for warehouses and manufacturing "

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81	Energy Plan	16	This plan with its increased reliance on electricity reminds me of the push for electric heat in the sixties. It was then and is now really short-sighted to promote one fuel source over others. What we need is diversity, not uniformity. What happens if and when the grid goes down? Not only will all the latest gadgets be unusable, but people will be stranded with no alternatives for power. The latest wind storm is a good example of my point. Many are searching for generators powered by oh horrors - fossil fuels.	Leslie Rowley		Thank you for you comment. While more renewable energy options may become available in the future, at this point in time, a switch to electricy is a necessary pathway toward meeting the state's 90x2050 goal. As we transition to more renewables, grid resilience is valued by both residents and business, especially because Vermont’s climate makes us vulnerable to grid outages. When storage is coupled with distributed energy generation it can provide a source of backup power and also offer the potential to minimize loads at peak times, thereby reducing energy costs. See section 17 in the main document of the ECOS Plan for how storage is incorporated into the Plan.
82	Energy Plan	16	For back-up, battery storage (as prices continue to plummet) and yes fossil fuels are going to be the answer. Using fossil fuels for a main heating system or for transportation, however, is going backwards.	Anonymous		Thank you for your comment. See section 17 in the main document of the ECOS Plan for how storage is incorporated into the Plan to address the issue of back up generation when heating becomes electrified.
83	Energy Plan	16	What kind of land was measured for this data, solely just open agricultural land? Does this include available land over previously developed, impervious parking lots? There is huge potential in citing ground mounted solar canopies over existing developed spaces while also preserving their uses for parking. Diversifying use, offering infrastructure to EV charging, and, of course producing energy.	Anonymous		Thank you for your comments. All land free from state and local known constraints was used to measure energy potential. Existing developed areas were not subtracted out from the analysis. The ECOS Plan does include assumptions on energy potential on rooftops and includes a policy statement encouraging solar canopies on parking lots.
84	Energy Plan	20	How can we make these ideas into reality?!	Anonymous		Thank you for your comments. The ideas you refer to are the CCRPC's action items and we will work to make them a reality through our unified work program and the work we do with our partners. Our partners include municipalities, Department of Public Service, Efficiency Vermont, and energy utilities.
85	Energy Plan	30	I’ve only looked at the EV areas so far— MEGO— and what I see looks like pretty good Rx, but could maybe use more timeline details and specifics. For instance, many, many more level 2&3 chargers in varied locations will be necessary to get people comfortable with buying an EV. For instance, where do people spend time with their cars parked, besides work? Restaurants, department stores, gym/sport facilities, etc. These establishments need to be convinced that sponsoring charging stations will increase their patronage while drivers wait for their cars to charge. I only became comfortable buying an EV when the Bolt came out because I felt I could drive for a day of errands and still get home to Huntington in the winter. Rural drivers will get the most out of EVs if they can be confident of returning home. Really every town and village needs multiple spots to recharge— look at how long it takes as opposed to filling up with gas! Also, a universal standard charging port would be good to encourage, or at least cheap or free adapters so everyone can use the Tesla stations. VHS vs. Beta, again? I hope to be able to look at other sections as time allows, but I am crunched to get projects done before the snow flies...	Knox Cummin		Thank you for your comment. The Plan does specifically reference downtowns as being key locations for public charging. See the ECOS Plan Main Document Strategy 2.5.d.5
86	Energy Plan	16	What kind of land was measured for this data, solely just open agricultural land? Does this include available land over previously developed, impervious parking lots? There is huge potential in citing ground mounted solar canopies over existing developed spaces while also preserving their uses for parking. Diversifying use, offering infrastructure to EV charging, and, of course producing energy.	Anonymous		Thanks for your comment. All land free from state and local known constraints was used to measure energy potential. Existing developed areas were not subtracted out from the analysis. The ECOS Plan does include assumptions on energy potential on rooftops and includes a policy statement encouraging solar canopies on parking lots.
87	Energy Plan	19	It's good to mention CNG, but given that engines must be altered to run on it, it might not be worth investing in retrofits or new technology that will be outdated within 50-100 years.	Darren Schibler		Thanks for your comment. Compressed natural gas although cleaner than gasoline is not in alignment with reducing fossil fuels in the transportation sector.

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88	Energy Plan	20	Has anybody explored policies that replace gas taxes with vehicle taxes? This would solve the infrastructure problem in the short term while incentivizing non-SOV travel long-term; subsidies for high-efficiency or low/no-emissions vehicles could help bridge the financial gap and further the 90/2050 goal.	Darren Schibler		Thanks for your comment. The Agency of Transportation completed this report on EV registration fees. https://legislature.vermont.gov/assets/Legislative-Reports/2016-Legislative-EV-Study-FINAL-formatted.pdf
89	Energy Plan	21	The wording here is somewhat confusing--has driving alone increased by 71%, or decreased to that number?	Darren Schibler		Thank you for your comment. The wording has been revised.
90	Energy Plan	22	Discussion of rail transportation is sorely lacking in this section, especially given the existing rail network in the county, and the potential efficiency and ability for rail to transition to renewable energy sources. Air transportation is already cost-prohibitive (at least from Burlington) and will become unsustainable in the near future.	Darren Schibler		Thank you for your comment. Please see the MTP section's discussion on rail.
91	Energy Plan	3	This land use section does not seem to relate to energy, but could discuss how compact settlement is more energy-efficient because of reduced travel distances, heating efficiency of clustered buildings, etc.	Darren Schibler		Thanks for your comment. This has been addressed in section 13 of supplement 2.
92	Energy Plan	46	Add a Chittenden County .005 gasoline tax/along with an electrical surcharge of \$X a year on all, making a tiered charge so that larger users pay more than the lowest users.	Jim Calder		Thank you for your comment. CCRPC does not have the authority to tax gasoline.
93	Energy Plan	47	There are many non-profit church buildings, why not work to have solar arrays installed on their roofs, provide the church some of the output energy and the rest going into the grid. This might also be done on our public school buildings, many of which are flat, again providing that school some of the energy while the grid gets the remainder.	Jim Calder		Thanks for you comment. The ECOS Plan energy related policy statements and actions in the main document address solar arrays on all types of buildings, so it is not necessary to specifically highlight church buildings.
94	Energy Plan	48	With many parking lots both public and no-public, we could partner with a solar company to install covered parking with solar panels on top, and then provide charging points and such for the electric/partial electric cars.	Jim Calder		Thanks for your comment. We added 'paired with solar generation' to the action 2.5.d.iv.4
95	Energy Plan	49	Do not forget your church buildings and public school buildings need to move to heat pump heat/a/c systems and again, they do need assistance in adding these to their buildings.	Jim Calder		Thanks for your comment. This specific action has been removed as it was already covered under other actions. Also we are referring to buildings more generally now.

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96	Energy Plan		1. We want to encourage the location of renewable energy generation following these guidelines as relevant. Inability to meet these guidelines does not limit the ability to develop renewable energy development. What does this mean? ...We'd like you to meet the following, but it's quite alright if you don't? This does not offer clear guidance. Again, as plan policies, these are already recognized as guidance statements and not enforceable "rules". Would simply state that "the following represent adopted policies for [intended to guide] the siting of renewable energy facilities in Chittenden County. Where state or municipal policies differ, the more stringent will apply... 3.Ultimately, it'll be left for the PUC to decide, but I still fear this language could well render the plan, and all the hard work that went into it, irrelevant with regard to its use/interpretation. It allows the possible exception to become the rule – how do we determine which, if any, guidelines are relevant to a particular project, when an applicant argues they're not? How is "inability" determined—based on financial constraints? Physical constraints? Or, per the PUC's version of the Quechee test, other overriding state interests? How do we distinguish between well and poorly sited projects, without clear and consistent guidance? The PUC and courts have regularly ignored plan language that is not relevant to a particular project, or that is unclear or ambiguous in its interpretation. Here we're handing them both—that it can be argued that the policies aren't relevant to a particular project, and that we're only encouraging, not requiring facilities to be sited accordingly. "Encourage" in this context is especially worrisome, as one of those words that's been highlighted in the past as meaningless in a regulatory context. Again, some rewording to get at your point, without given up the ship, might help. And yes, technologies and circumstances change over time (as is true for all types of development), so plans must be updated and readopted every 8 years to adjust and remain current – and can be amended at any time as needed (admittedly a much tougher call at the regional level). Consider this my input on the current draft, as a not very active member of the committee (again my apologies for having missed so many meetings). I'm definitely not speaking for the town...will seek their input before any board votes. And again, I really appreciate all the great work you and Emily have put into this over the past several months—I just want to make sure it counts, at the other end, to the extent any of us can anticipate what the PUC might do...	Sharon Murray (NOT on behalf of the Town)	Bolton	Thanks for your comment. We added "it does not necessarily preclude and replaced encourage with recommend.
97	Energy Plan		How is the ECOS Plan addressing the proposed rule on decibel limits?	Michael Oman	Underhill	Thanks for your comment. We decided that adding a policy statement about the decibel limits is out of scope with the ECOS Plan.
98	Energy Plan		CEP Goals refer to per capita energy use but all the town and county data is shown in totals	Michael Oman	Underhill	Thanks for the update. Staff will consider converting all data into per capita to better track progress on CEP goals and it will likely be included in the second public hearing draft.
99	Energy Plan		Is it possible to utilize the wind speed data to show MWh potential in more detail?	Michael Oman	Underhill	Thanks for the comment. Staff will address this when providing technical assistance to Underhill to assist them enhancing their town plan consistent with Act 174 standards.

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100	Energy Plan		<p>Folks,</p> <p>Surprisingly, the Chittenden County Regional Planning Commission's draft Regional Energy Plan (REP) ignores entirely an important source of renewable energy: passive solar energy technology. The county and the state would realize significant benefits by including programs that encourage and facilitate the use of passive solar designs in new construction and retrofits of both residential and commercial buildings.</p> <p>Please accept this email as a formal comment on the REP, along with the attached letter to the editor that appeared in the Burlington Free Press on February 18, 2016.</p> <p>Combined with energy conservation measures, passive solar technologies have resulted in buildings in Vermont whose annual budgets for supplemental energy are much less than half of the average building. A well insulated single family home in Vermont can easily derive more than half of its annual heating budget by incorporating passive solar design elements such as a sunroom, a solar greenhouse, south facing windows with insulating shades, and thermal mass to store the energy.</p> <p>One of the most significant advantages of passive solar technologies is that the issue of siting is non-existent. Large scale wind energy or photovoltaic installations are unfortunately often impacted by controversies, expenses, increased timelines, and legal issues due to siting concerns. With passive solar, the building IS the collector, so there are no siting issues outside of the normal process for building permits and zoning.</p> <p>Vermonters such as Doug Taff and the late Robert Holdridge of Hinesburg (right here in Chittenden County!) designed groundbreaking buildings that were used as examples nationwide of how designing with the sun can provide large energy savings in cost effective ways. The first nationwide conference on solar greenhouses was held at Marlboro College in 1977, where then Representative Jim Jeffords was the keynote speaker. Garden Way Sunrooms in Charlotte became the #2 greenhouse company in the nation in 1984. Beth Sachs and the late Blair Hamilton were pioneers in the area of passive solar retrofits, along with their phenomenal work with the Vermont Energy Investment Corporation that they co-founded in 1986. There are dozens of other examples.</p> <p>If only a portion of the buildings that have been built in Vermont in the last 40 years had utilized principles of passive solar design, the state's energy demand today would be many percentage points lower. Today we continue to see most new buildings being designed and built in ways that fail to utilize the solar energy that strikes the buildings. We are wasting that energy that is delivered directly to the building and thus incurs no cost for transmission. It is critical that the Chittenden County Regional Energy Plan not let this opportunity pass us by in the decades ahead.</p>	Scott Hicks	Underhill	Thanks for your comment. Passive solar was added to the ECOS plan policy statement 2.4.a.vii found in the main document
101	Energy Plan		<p>CONTINUED FROM ABOVE: The draft REP should be amended to include strong and extensive measures to encourage the use of passive solar designs and technologies. The plan should include the following elements to foster and facilitate the use of passive solar technologies in both new construction and retrofits:</p> <ul style="list-style-type: none">• Plans and funding for incentives.• Capital availability through low interest loans.• Technical assistance for designers and builders.• Improvements in building codes and standards.• Public education. <p>There are decades of work to draw upon in formulating this portion of the plan – technical principles, design tools, economic justification, and methods of working with designers, builders, and the public.</p> <p>Partnering with Green Mountain Power would be an excellent way to build upon that company’s outstanding leadership in the use of renewable energy by an electric utility. Going forward, Vermont cannot afford to overlook this significant source of clean renewable energy.</p> <p>If possible, I would appreciate acknowledgement that the CCRCP has received this comment. I submitted a similar comment to the draft Vermont Energy Plan in 2015 and never received an acknowledgment. I do not believe that the state's plan was amended to include passive solar initiatives. Thank you for your consideration of these suggestions.</p> <p>Best Regards, Scott D. Hicks PO Box 14 Underhill Center, VT 05490 shicks.vt@gmail.com 802-899-4772</p>	Scott Hicks	Underhill	Thanks for your comment. Passive solar was added to the ECOS plan policy statement 2.4.a.vii found in the main document

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102	Energy Plan		<p>I am writing to offer some additional comment concerning the identification of know or possible local constraints in the ECOS Energy Plan that CCRPC is currently working on. I had previously submitted that steep slopes (30% or greater) be identified as a known local constraint because they are used for reducing allowed density in the town’s development regulations. You had previously let me know that the Energy Committee at CCRPC recommended that steep slopes be listed as a potential local constraint because an applicant might be able to obtain a variance.</p> <p>That reasoning is not in keeping with Williston’s development regulations as written nor as administered. Chapter 19 of the town’s Unified Development Bylaw (attached)detail how density is calculated. This includes the metric used for steep slope. There is no mention of a variance as a possible exception to the calculation method described. In addition, the town is not really open to the notion of granting variances. In my 9+ years working in Williston the DRB has approved a single variance and has rejected all others. We have never entertained a variance request on density calculations</p>	Ken Belliveau	Williston	Thanks for you comment. We included steep slopes as a local known constraint.
103	Energy Plan		<p>Richmond has requested the following constraints, but there is not supporting language for them in the zoning or in the town plan, as the plan is expired and a drafting process is ongoing. The following will be considered by CCRPC staff after the adoption of the Town Plan. (1. Ridges 2. Slopes >_ 30% 3. Trails 4. Conserved Land 5. ANR Primary Conservation Areas 6. Highest Priority Habitat derived from STA Report)</p>		Richmond	Thanks for your comment. The resources and associated language in the Town Plan is not sufficient for inclusion as constraints in this Plan. However, the zoning language protection for slopes equal to or greater than 35% is strong enough and has been included in this Plan as a constraint.
104	Energy Plan		<p>Removal of a 1,500 exemption for wind turbines is part of a zoning regulation change that is going town vote in March. Can we use the town plan as the guiding policy which says no development is allowed above 1,500 ft</p>	Andrew Strniste	Underhill	Thanks for your comment. Yes we are deferring to the Town Plan as the guiding policy.
105	Energy Plan	13	<p>There is a difference (discrepancy?) that I don't understand in the CC wide tables (pdf.13) * Fossil Fuel Energy Used for Transportation in 2015 = 4,971,503 MMBtu * Total Light Duty Transportation Energy Use in 2015 = 7,552,000 MMBtu I don't understand why these two numbers are so different and especially why total light duty energy, which seems to be a subset of total transportation energy, would be ~50% higher</p>	Michael Oman	Underhill	Thanks for your comment. This has been fixed. The difference lies in modeled assumptions vs. estimated fossil fuel use from number of vehicles.
106	Energy Plan		<p>It would be helpful to number tables for easier reference.Several of the maps included with the plan pdf are unreadable Sometimes energy reduction targets seem to be total (eg pdf.10), and sometimes per capita (eg pdf.19); do targets reflect per capita or total reductions? It would be helpful to number tables for easier reference. Several of the maps included with the plan pdf are unreadable Sometimes energy reduction targets seem to be total (eg pdf.10), and sometimes per capita (eg pdf.19); do targets reflect per capita or total reductions?</p>	Michael Oman	Underhill	Thanks for your comment. Showing the data on a per capita basis will be included in the second public hearing draft.

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107	Energy Plan		<p>It appears that solar constraint layers do not reflect existing structures (eg houses) with or without immediately adjacent property, which may make assessments of land available for large scale solar arrays less than totally reliable. It would be helpful if this information could be made available somehow since it will significantly affect where large ground based solar arrays may be located.</p> <p>* A suggestion to make mapping a little easier to use by municipalities: I note the wind composite layer includes considerable information re wind details (ie hub height & avg wind speed in both mps & mph (wndrsccl (wind resource class?) appears to be null) but neither the wind nor solar layer includes the nature of possible constraints directly. This will necessitate bouncing between many constraint layers to determine what is going on. Since these layers delineate only *possible* constraints (not known/definite constraints) it is possible that, under some circumstances a community may wish to circumvent some constraints to particularly desirable conditions for RE generation (eg located on 3 phase power). Is there any way that the RPC could populate the mapping units with constraint attributes (for at least the State possible constraints). I think this would make the mapped layers much more productive for communities to use.</p> <p>> Also, is there any more information on how to use the wind data (hub height and avg wind speed) to help us refine wind potential at our locations?</p>	Michael Oman	Underhill	Thanks for your comment. Staff will work on making the GIS layers more accessible.
108	Energy Plan		<p>It seems like the goals for (a) a reduction in energy use and (b) the source of renewables should somehow be linked. A town plan should get credit from doing very well with one of these goals while perhaps not meeting the other.</p>	Michael Oman	Underhill	Thanks for your comment. Yes going forward we are working with Efficiency Vermont and others to track progress on all these areas. At the same time we are planning to site more renewables we also need to be reducing our energy consumption by 1/3.
109	Energy Plan		<p>In general, the more information available with respect to the projected effectiveness of conservation measures beyond just targets the more to the point will be local plans, To wit, what specific actions might we be taking in order to realize our targets and how effective might we expect them to be in doing it? To the extent that these measures can be quantitative, it will be helpful.</p>	Michael Oman	Underhill	Staff will work with Underhill on this when we provide TA on their town plan update
110	Energy Plan		<p>While it is likely true that "cold climate heat pumps are more efficient than oil heating systems", at least at moderately cold temperatures, the source of the electricity makes a huge difference in their effectiveness at reducing GHG and will be dependent on the successful implementation of effective RE program.</p>	Michael Oman	Underhill	Thanks for your comment.
111	Energy Plan		<p>I don't see very much discussion of what role, if any, electricity storage might play in this plan. This could be an important contributor to a variety of important network qualities, RE variability, reliability, and load management, including reducing the need for peak load distribution network for distributed storage. Some approaches such as pumped storage would have important land use implications as well if they are possible at all. Would it make any sense to include electrical storage discussion in the plan both at the industrial level and distributed storage with or without extensive distributed RE generation? I don't know how important this might be in our energy planning, but as we succeed in reducing VMT & gas usage, sources of financial support for infrastructure, etc will diminish dramatically, affecting our ability to implement further change. Is there any thought to exploring/addressing this issue at all</p>	Michael Oman	Underhill	Thanks for your comment. Energy storage discussion has been added to the energy section key issues as a mechanism for resiliency.
112	Energy Plan	16	<p>(tables: Land Available for Wind and Solar Generation, Renewable Electricity Generation Potential, Renewable Energy Generation Target & Possible Scenarios...): I am worried that demanding such a high proportion of potential generation (>~1/3 of potential for both wind & solar (in terms of acreage) for high target) won't leave much room for error or adjustments. Not sure what, if anything can be done about this.</p>	Michael Oman	Underhill	Thanks for your comment. There are also a variety of ways a town can meet their target through other technologies and these targets are regional in nature so we need to work regionally to meet the targets.

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113	Energy Plan	17	3.3.3: A personal observation: I don't really like goals of the form "strive for..". Goals by their nature will need to be striven for. In my mind a goal should be something more like: "Locate 80% of new development in areas planned for growth, which amounts to 15% of our land area". We can then strive to achieve it.	Michael Oman	Underhill	Thanks for your comment. We are not intending to edit the 8 strategies at this time.
114	Energy Plan	20	I for one, could use more information on "stretch energy code" & how does it avoid disincentives for infill in growth areas?	Michael Oman	Underhill	Thanks for you comment. The policy statement 2.4.a.iV has been clarified.
115	Energy Plan	21	it would be helpful to have at least a passing allusion to the contents of (or hyperlink to) constraint strategies (3.2.3.1.f, 3.2.4.1.e, 3.2.4.2.e.) and setback requirements 30 V.S.A. §248(s) (what are these? mapped? how define suitable lands w/o mapping?); also note "municipal screening requirements adopted in accordance with 30 V.S.A. §248(b)(B)"	Michael Oman	Underhill	Thanks for your comment. The Plan is linked to the specific statute.
116	Energy Plan		I don't know how extensive the problem is elsewhere, but at least here in Underhill we have encountered some issues with net metering projects, even at currently envisioned low levels, with the rigid territories of different suppliers. Is there anything that can be done to ease this issue or address it in any way?	Michael Oman	Underhill	Thanks for your comment. Staff will work with Underhill on this issue through the update of their town plan.
117	Energy Plan		Although there is some discussion of 3 phase power in conjunction with regional scale transmission lines, the role of 3 phase service to potential renewable sites has not been addressed, or at least emphasized. RE electrical generation on the scale apparently envisioned in this plan will (as I understand it) requires 3 phase service to far more sites in the rural areas where they can be located than is currently available. It would be helpful to have some discussion of this issue and where and how this service can be extended to facilitate extensive RE generation.	Michael Oman	Underhill	Thanks for your comment. The plan addresses the issue of connecting to existing distribution through the policy statement "Locate energy generation proximate to existing distribution and transmission infrastructure with adequate capacity and near areas with high electric load". Additionally, we reviewed the utilities Integrated Resource Plan and they do not conduct long term planning of distribution lines in a way that discusses where lines will be extended in the future.
118	Energy Plan		Given how difficult weatherization has proven overall, and given the legitimate question as to whether it’s better to replace structures with energy efficient new structures (versus trying to insulate what is often poor construction or very old structures), does it make sense to recalibrate the weatherization date for something other than 60,000 by 2017 / 80,000 by 2020?	Will Dodge	Essex	Thanks for your comment. The weatherization goal is based on State statute so we do not have the authority to change it
119	Energy Plan		Section 3.2.2 Invest in Areas Planned for Growth, Sec. 1(c) (p.100) – should there be a concept of replacing housing to improve energy use and lower emissions?	Will Dodge	Essex	Thanks for your comment. The term retrofit existing buildings does assume that the building will be weatherized to reduce energy use. Also, any time a building is replaced it would be required to follow the state energy code.
120	Energy Plan		In deciding to promote heat pumps over natural gas, is CCRPC basically taking a position that Vermont Gas’s efforts to employ “renewable” (i.e., anaerobic digester-based) natural gas is futile? Would there be a scenario by which CCRPC would consider a switch toward that product as a suitable alternative to cold heat pumps?	Will Dodge	Essex	Thanks for your comment. Because renewable natural gas is in its infancy we'll revisit this gain when the Plan is update in 5 years.
121	Energy Plan		Is the Energy Star program the only metric by which a Chittenden County home is considered “weatherized”?	Will Dodge	Essex	Thanks for your comment. Because of data availability we are only measuring homes using the energy star program.
122	Energy Plan		Do the sites shown in the chart reflect “constructed” sites or only “permitted” sites? Either way, it would be good to disclose in the source information	Will Dodge	Essex	Thanks for you comment. The renewable energy sites are permitted sites and the Department of Public Service is currently working with utilities to vet whether a facility was constructed.

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123	Energy Plan		Has CCRPC considered (or would it consider) a “solar ready” requirement for new affordable housing stock (at least as a recommendation)?	Will Dodge	Essex	Thanks for your comment. We decided that we would not include a solar ready requirement.
124	Energy Plan	102	6. Section 3.2.4ai Transform Region’s Energy System (p.102) * While we’ve enjoyed the Button Up events we worked on so far this year, it’s worth at least evaluating whether this is the best / most effective means of encouraging weatherization. (In other words, build a continual reevaluation mechanism into the “continue partnerships” bullet of subsection ai).	Will Dodge	Essex	Thanks for the comment. The change has been made.
125	Energy Plan	103	Section 3.2.4avii Provide assistance to municipalities * Wondering whether the assistance on enhancing town plans to meet the energy certification requirements of Act 174 should be “where requested”, as some towns might decide it’s not necessary (and that the suitability policies can be used instead).	Will Dodge	Essex	Thanks for your comment. A town is not required to update their town plan per Act 174. If they choose to and we have funding available, we are able to assist them. I agree that adding “where requested” would help to clarify that this process is optional for towns.
126	Energy Plan	104	8. Suitability Policies (p. 104): * Modify romanette (iv) to say “30 meters (98.43 feet)” OK * Modify romanette (v) to read “50 meters (164.04 feet) in Chittenden County’s areas planned for growth),”OK	Will Dodge	Essex	Thanks for your comment. The change has been made.
127	Energy Plan	105-106	Might make sense here (if true) to state something about CCRPC support for the Agency’s attempts at procuring electric school buses as part of the VW Settlement: http://dec.vermont.gov/air-quality/vw	Will Dodge	Essex	Thanks for your comment. We have included an action to work with municipalities and other entities who manage fleets to replace vehicles with electric powered vehicles. See 2.5.d.iv.2
128	Energy Plan		May also make sense to mention something about encouraging the use of electric vehicles in tourism promotion (i.e., that VT is an electric-vehicle-friendly place to visit, with an ever-increasing amount of public EV-charging infrastructure).	Will Dodge	Essex	Thanks for your comment. The change has been made.
129	Energy Plan	138	Last non-bulleted paragraph, second line, change “guidesits” to “guides its”	Will Dodge	Essex	Thanks for your comment. The change has been made.
130	Energy Plan		Electric efficiency programs have always worked to reduce electrical demand especially during peak periods but the development of the Smart Grid will provide a powerful tool to address this issue. Smart Grid coupled with education, behavior change, and load control technologies can help reduce peak demand and defer substation upgrades which can result in substantial cost saving. "I’m not clear how by “Smart Grid” per say is going to achieve what is spelled out "	Robert Dostis	GMP	Thanks for your comment. Price signaling is part of the discussion in the key issues section 17 in supplement 2.
131	Energy Plan		See WORD Document regarding an area you might want to emphasize, namely partnering with utilities serving Chittenden County on energy transformation. You mention in the report that you would work with utilities, this I hope provides a bit more rationale for why that’s a good strategy. Feel free to use any of the language if it’s helpful.	Robert Dostis	GMP	Thank you. The explanation is very thorough and helpful. Some of the language is included in the Transition to Renewable section of the Plan.

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132	Energy Plan	77	Chapter 2, 2.5.5 Energy, under Efficiency and Conservation, 4th bullet :While efficiency programs targeting electricity and natural gas have been largely successful (add: <i>in the commercial and residential sectors</i>), there is an urgent need to fund and develop programs for non-regulated thermal fuels and for the transportation sector (add: <i>as well as for multi-family rental properties where the tenant pays the utility bills</i>); Last sentence: To prepare for widespread adoption of electric vehicles, charging infrastructure should be developed (add: including the availability of at-home charging infrastructure.)	Jennifer Green	BED	Thank you. The change has been made.
133	Energy Plan		Chapter 2, under Renewable Energy Generation, 3rd bullet: Second to last sentence, no longer as relevant: “In addition, Burlington’s plan to capture ‘waste heat’ from the McNeil power plant and distribute it to the ONE and heat greenhouses in the Intervale, etc....” could be rewritten to read: Burlington is hoping to advance a district heating system using McNeil’s waste heat for distribution to the down town core, among other venues	Jennifer Green	BED	Thank you. The change has been made.
134	Energy Plan	103	Chapter 3, High Priority Strategies, under 4. Energy, page 103: Decrease fossil fuel heating by working with partners such as Efficiency Vermont (add: and the Burlington Electric Department for Burlington residents)	Jennifer Green	BED	Thank you. The change has been made.
135	Energy Plan		Under viii: Use the Energy Acton Network Community Energy Dashboard to educate residents....Add: Institutions (including municipalities, institutions of higher education, businesses and non-profits) can use the Vermont Climate Pledge Coalition Tracker to upload actions that will help the State achieve its 90% renewable energy 2050 goal.	Jennifer Green	BED	Thank you. The change has been made.
136	Energy Plan		Is it fair to treat Global Foundries separately from Essex/Essex Junction for the purposes of energy, considering that we also benefit disproportionately from the jobs and tax base it provides? How is this handled for other metrics and realms of governance (water/wastewater, transportation, etc.?)	Darren Schibler	Essex	Thanks for you comment. Global Foundries is included in the total electricity for Essex Junction and the Town. See the ECOS Plan Supplement 6 for a discussion on the renewable energy targets.
137	Energy Plan		South Burlington will also not be able to meet its targets—how are they going to handle this? Will there be agreements or a credits market involving towns that have excess supply? Can Essex/EJ participate in that	Darren Schibler	Essex	Thanks for your comment. See the ECOS Plan Supplement 6 for a discussion on the renewable energy targets.
138	Energy Plan		Burlington seems to have already met its target despite the fact that it has the lion’s share of population and energy use. Is this due to the McNeil plant? Can similar large-scale renewables facilities be sited in the towns that have higher energy demands, residential or commercial?	Darren Schibler	Essex	Thanks for your comment. Yes this is due to all of Burlington’s generation that is sited within the City and includes McNeil, half of Winooski One, and numerous large solar array projects. Yes large scale renewables can be sited in other towns so long as it is consistent with land use plans and adheres to permitting.
139	MTP	N/A	Will this update include the advent of autonomous vehicles?	David Usher	Colchester	Thank you for your interest. The plan included an analysis of autonomous vehicles. This can be found in the Scenario Planning section in Supplement 5 - the Metropolitan Transportation Plan.

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140	MTP		At the energy sub-committee Keith Epstein from South Burlington asked why there is so much money in the MTP for highway expansion, and whether the energy committee can change this because it’s contrary to our energy goals. Jeff Forward, from Richmond, also stated that he hopes that towns will be able to set transportation goals at the local level to get people out of their cars, and said that he supported Keith’s comments.	Keith Epstein	South Burlington	The MTP is somewhat constrained by federal funding requirements, and our actions to shift almost 90% of the light duty fleet to electric vehicles means that driving doesn’t necessarily go against our energy goals. Major capacity projects are likely way off into the future and any future MTP will be re-examining these recommendations. It is also possible that the CCRPC will take a closer look (scoping study) within the next 5 years to better understand the need for possible I-89 expansion and Interstate access improvements. Our modeling analysis showed likely severe congestion on the Interstate when we look out to 2050, as well as traffic benefits if we improve Interstate access between Exits 12 and 15. Another note about federal funding: While this comes in a variety of programs – Interstate, surface transportation, congestion mitigation, transit, etc., there’s flexibility in transferring funding from one category to another. That flexibility is primarily granted to state DOTs that they then work with MPOs in their state to program those funds. If numerous public comments were recommending that we head in another direction (say away from expanding the Interstate) we would discuss these comments with the appropriate CCRPC committees (TAC, LRPC) and the Board that will ultimately decide on any changes to the current MTP recommendations. I should also point out that our regional transportation planning is closely coordinated with VTrans and FHWA. Their views can also influence the MTP direction and recommendations. Ultimately, developing the final MTP recommendations is a balancing act to address all multimodal needs in the county.
141	MTP		GMTA and SSTA offer limited ADA transportation. My company <Big Brother Security Programs, Inc. 802 242-4440> has offered to contract with GMTA and SSTA to provide ADA transportation services for oversized chairs (Bariatric) as well as emergency transportation. Those companies have refused to even consider us providing ADA services. We operate onholidays and Sundays, 24/7 <even Battle of Bennington Day!!!>. They do not. We permit riders to stop at pharmacies or multiple locations. They do not. We offer variable time pick up and drop off times for medical procedures like dialysis. They do not. We offer ADA transportation between counties. They do not. We offer ADA transportation for medical needs or emergencies. They do not. We properly train all our drivers in the safe handling of ADA transports. They do not. We offer fuel <2X or better> efficient late model vehicles designed especially for ADA transportation. They do not. We train and are equipped for the transportation of individuals needing oxygen. They are not. We are equipped to transport oversized wheel chairs (both length and width). They are not. We take special need people from our vehicles safely out of the vehicle to their destination in person. They do not. We permit the transportation of individuals with support animals and individuals like aids <for the same price>. They do not. We transport from medical providers from and to other counties and States. They do not. Perhaps some of the millions of dollars spent by the local transportation services could be used to contract with private sector firms to provide many different types of services rather than having a one size fits all system. Many needy ADA riders are prevented from receiving reasonable accommodations because federally subsidized local transport companies have inflexible rules and limited ability to accommodate all handicapped persons needs. This could be easily fixed by using local contractors in the private sector to provide the necessary transportation. Handicapped persons are regularly denied services where services could easily be provided. There are no current plans to address these issues. We are frequently asked (in many counties) to provide ADA transportation services GMTA and SSTA <and others> won't provide. The State has given us the cold shoulder and has said we can not receive Medicaid or Medicare payments for transportation. If you call SSTA for a ride there is a 92%-94% chance of getting a completed ride. That means if you are going to dialysis, you only have a 1 in 20 <or greater> chance of dying from transportation failure EACH TIME YOU RIDE. There are no effective plans in place for either GMTA or SSTA for providing emergency ADA transport in Vermont <or non-emergency>. Many medications can not be given out without the person with the script being present. No ride, no meds. If your needs change it can take over 5 days to get a ride with CCTA. In many cases, this can be life threatening. The diabetic without insulin normally won't last very long. GMTA meetings to address ADA issues with ADA transport are ineffective. I've attended for a number of years and presented issues and possible fixes. They promise to call but have always failed to call or write. Many in the handicapped community are afraid that the poor service they receive will get worse if they "complain". Does the transportation plan forbid the use of private assets to accomplish transportation goals or is that the exclusive domain of the heavily funded quasi-governmental bus companies? I'd love to provide solutions to many of the issues above if there was anybody interested in listening. Do they help dementia patients or people with mental issues safely get from the vehicle to their destination? Unfortunately no. We service many hospitals and provide transport services you just can't get from the local bus transportation providers.	Shelley Palmer		Shelley - Thanks for these comments. Under the ADA, GMT is responsible for providing the ADA paratransit service. They have historically, since the ADA came into effect back in the 90’s, contacted that service to SSTA. I believe that every few years (perhaps 3) they rebid that work. SSTA has won all past bids. This latest contact period is probably ending next year and I would expect GMT will again consider bidding out the service. We will share these comments with GMT.

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142	MTP	Environmental Mitigation	I would encourage any discussion or strategies in the plan that would encourage municipalities to consider use of GSI in transportation projects, during maintenance or expansion. Most important would be to figure out how to encourage use of stormwater infiltration practices. One idea would be to help them determine at what point during a project, they could apply for grants that support use of GSI. Is there a place in the plan to encourage use of new technologies, like pervious pavement, asphalt by providing education and opportunities for demonstration projects. The last suggestion is to acknowledge the Green Infrastructure Collaborative and their Green Infrastructure round table as a resource. I had mentioned that in developing the mitigation sequence, it would be best to include more specific information from each permit program: Floodplains – Rebecca.Pfieffer@vermont.gov; rivers program – Rob.evans@vermont.gov; Wetlands program – Laura LaPierre@vermont.gov. The plan should acknowledge that if a project gets to the point of requiring mitigation, the resulting increase in expense may make the project less of a priority. Projects that require upgrade and maintenance of existing roads might not be able to avoid mitigation, but a park and ride opportunity at one spot could become a reduced priority over another because of mitigation requirements.	Karen Bates	VT DEC	Mitigation Strategies table revised to add more ANR sections under Regulatory and Information Contacts; Green Stormwater Infrastructure added to mitigation activities list
143	MTP		First, Local Motion offers its heartfelt appreciation and support for the even greater emphasis in this plan (as compared with past years) on investing in bike-walk related improvements. As you of course know, this is consistent with the priorities of a majority of Chittenden County residents (as indicated by the county transportation survey that you conduct) as well as with the goals of the ECOS Plan. The CCRPC is a leader in this regard, and we are glad (though unsurprised) to see that continue with this plan	Jason Van Driesche	Local Motion	No response necessary
144	MTP		Second, while we also applaud the inclusion in the plan of a goal of getting to 20-minute headways on all transit routes countywide, we would like to see that taken further. We recognize that this goal represents a very large leap in service (and in cost) from the current status of our transit system. That said, if we are going to be ambitious, let's go all the way in two specific regards: 1. Set a goal of 15-minute headways. That is the level of service at which choice ridership increases significantly. We won't get there right away, but we can set the goal now. 2. Invest in planning for bus rapid transit. Planning studies are needed regarding opportunities to reallocate existing lanes on multilane roads for BRT and carpooling, as well as other innovative strategies for making transit the fastest option for commuters.	Jason Van Driesche	Local Motion	The goal was changed to 15-min headways on the four major trunk routes in the county (US2, US7, VT15 and North Ave) and 20 - 30 min headways for all other transit routes. BRT on major arterials/transit routes (US2, US7, VT15, North Ave) was evaluated and it was deemed prohibitively expensive for our region.
145	MTP		Third, we would like to voice our strong reservations about planning for any further investment in our interstate highway system. Investments in highway capacity directly undermine the impact of investments in all non-SOV modes (as well as divert enormous quantities of money that could be used for more forward-looking transportation investments). Most Vermonters do not want six-lane highways and more interchanges; they want a transportation system that works and that reflects Vermont's character. We understand that the proposed improvements are many years out and entirely speculative at this point. Even so, we question the wisdom of including them.	Jason Van Driesche	Local Motion	There was considerable discussion at the Transportation Advisory Committee (TAC) on the issue of capacity expansion on I-89 between Exits 14 and 15 and the TAC decided to keep this investment on the MTP project list. This comment will be presented to the TAC, LRPC and CCRPC Board at their January meetings for further discussion.
146	MTP		Finally, we request that CCRPC institute a policy of subjecting all major projects to a "VMT test," and that any projects that increase VMT be removed from consideration for funding. Your modeling demonstrates that many key links in our transportation network are already at capacity at peak hours. The last thing we need is more cars on the road.	Jason Van Driesche	Local Motion	Alternative evaluation and selection considers many factors and the overall impact on the transportation network is an important one. Using a VMT test is a good suggestion and CCRPC will work to incorporate this measure when applicable to the project in question.

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147	MTP		1. Table of Contents- Replace “Safety Performance Management” with “National Performance Management Measures”. Then list “Highway Safety Improvement Program”, “Pavement Condition”, “Bridge Condition” , “Performance of the NHS”, “Freight Movement on the Interstate”. This aligns with the wording in our regs. in 23 cfr Part 490. Note there are two more National Performance Management Areas in the regs. CMAQ regarding traffic congestion and CMAQ regarding on-road mobile source emissions neither of which apply to the CCRPC because you are not a TMA and you are in attainment. For informational purposes you may want to list these and note they do not apply to the CCRPC.	Chris Jolly	FHWA	This section has been revised.
148	MTP		2. Table on page 4. Suggest title says Federal, State and Local funds. The \$1,744.72 in the first row is shown as a “Cost”. This may be a little confusing. Can you add “available” after Total funding and maybe a Bold line separating the 1st and 2nd row. Can you add “and project costs” at the end of the sentence which ends in “...34 years”.	Chris Jolly	FHWA	This comment has been addressed.
149	MTP		3. Page 6. Top of page identify as National Performance Management Measures and then start with Highway Safety Improvement Program to replace “Safety Performance Management”. After the Highway Safety Improvement Program info. suggest you list each of the additional Measures as noted in comment #1. above with the note that these are to be identified in consultation with VTrans. For each performance area you may want to include the measures that are identified in our regs. Under pavements 23 cfr 490.307 the Measures are - 1. % of pavements of the Interstate system in good condition 2. % of pavements on the Interstate in poor condition 3. % of pavements on the non-Interstate NHS in good condition and 4. % of pavements on the non-Interstate NHS in Poor condition. Note our regs. establish the performance measures and the States and MPO’s set their own targets.	Chris Jolly	FHWA	This section has been revised.
150	MTP		4. Suggest you include a discussion on the ECOS Scorecard pertaining to transportation measures in the “Transportation Goal, Issues and Performance Measures” section.	Chris Jolly	FHWA	Added the other ECOS transportation indicators from the scorecard to this section.
151	MTP		5. Page 11- Current Transportation Conditions- There does not seem to be much information on the actual existing condition of the pavement that make up the MTS. There is a brief discussion at the bottom of page 3 on the condition of the arterials. Suggest additional information be provided.	Chris Jolly	FHWA	Will discuss possible revisions with staff to address pavement condition on MTS.
152	MTP		6. Page 24 Bridges- What is the significance of having a sufficiency rating below 50 or above 50 ? Are the 8 bridges with a sufficiency rating below 50 scheduled to have work done ?	Chris Jolly	FHWA	The text has been edited to address this comment.
153	MTP		7. Page 13 Chart. I believe 2013 should show a VMT of 25.3 (not 25.4) to be consistent with the Chart on page 5 with the same information.	Chris Jolly	FHWA	Corrected
154	MTP		8. Page 35 Last paragraph “coats” should be costs.	Chris Jolly	FHWA	This change has been made.
155	MTP		9. Page 37 Suggest a line be drawn across the page under Stormwater/Environmental to reflect a summation.	Chris Jolly	FHWA	This table will be revised.
156	MTP		10. Page 45 Cross County Corridor should be in red.	Chris Jolly	FHWA	The map has been revised to show greater contrast for this corridor. We use a different color for it since it is essentially different from the others that all lead to the Regional Core, while this one is more circumferential around the Core.
157	MTP		11. Page 68 2nd line the “three quarters” should be 70%.	Chris Jolly	FHWA	Corrected.

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158	MTP		<p>Dear Peter,</p> <p>The State is looking at a plan to consolidate these services into a State wide dispatch service. A company called MTM was looking at providing these services. They had put together systems in Florida and Wisconsin, both had major flaws and the systems they put in place were far less effective than what we now have with GMTA and SSTA. If you are looking at future you might consider looking at where these sorts of transportation are heading. I might note that the VT decision makers at Green Mountain Care often have no first hand knowledge in transportation.</p> <p>Bidding is a Federal requirement and the system is set up so that it is highly impractical/improbable for anybody except the established monopolies to provide services. I suggest the current transportation providers augment their services to address some rather serious short comings. They simply refuse to even consider doing this so the public (especially handicapped people) is saddled with the current system.</p> <p>I'm looking at specific ways to provide transportation services. GMTA and SSTA are happy with the way that things are. If you are interested in transportation planning, are the issues I raise unimportant? ADA issues are complex but solvable. Our current system is not effective in providing everybody with transportation services.</p>	Shelley Palmer		<p>We agree that transportation should be available to all who need it, when they need it, to the extent possible and shouldn't be curtailed by excessive or unnecessary bureaucratic issues. Under the ADA, GMT is responsible for providing the ADA paratransit service. They have historically, since the ADA came into effect back in the 90's, contacted that service to SSTA. I believe that every few years (perhaps 3) they rebid that work. SSTA has won all past bids. This latest contact period is probably ending next year and I would expect GMT will again consider bidding out the service. We will share these comments with GMT.</p>
159	MTP	1	Burlington, neighborhood streets from Home to Flynn with separate bike, walk, vehicle lanes, and no limited access highway paving over Englesby Brook so as to destroy its capacity for storm water storage and no limited access highway bifurcating our industrial area from Sears to Lakeside Ave, degrading our economic capacity.	Anonymous		Champlain Parkway is in the Final Design phase and has included a robust public involvement process, as well as the required federal and state environmental review, to arrive at the current preferred alternative.
160	MTP	1	<p>GMTA and SSTA offer limited ADA transportation. My company <Big Brother Security Programs, Inc 802 242-4440> has offered to contract with GMTA and SSTA to provide ADA transportation services for oversized chairs (Bariatric) as well as emergency transportation. Those companies have refused to even consider us providing ADA services. We operate on holidays and Sundays, 24/7. They do not. We permit riders to stop at pharmacies or multiple locations. They do not. We offer variable time pick up and drop off times for medical procedures like dialysis. They do not. We offer ADA transportation between counties. They do not. We offer ADA transportation for medical needs or emergencies. They do not. We properly train all our drivers in the safe handling of ADA transports. They do not. We offer fuel <2X or better> efficient late model vehicles designed especially for ADA transportation. They do not. We train and are equipped for the transportation of individuals needing oxygen. They are not. We are equipped to transport oversized wheel chairs (both length and width). They are not. We take special need people from our vehicles safely out of the vehicle to their destination in person. They do not. We permit the transportation of individuals with support animals and individuals like aids <for the same price>. They do not. We transport from medical providers from and to other counties and States. They do not. Perhaps some of the millions of dollars spent by the local transportation services could be used to contract with private sector firms to provide many different types of services rather than having a one size fits all system. Many needy ADA riders are prevented from receiving reasonable accommodations because federally subsidized local transport companies have inflexible rules and limited ability to accommodate all handicapped persons needs. This could be easily fixed by using local contractors in the private sector to provide the necessary transportation. Handicapped persons are regularly denied services where services could easily be provided. There are no current plans to address these issues.</p>	Shelley Palmer		<p>See responses to this comment above. We would like to reiterate that the CCRPC is not party to GMT's contracting procedures. GMT has an open bid process for ADA services and a defined selection procedure. We will send this comment to GMT.</p>
161	MTP	3	This is especially a problem in CC because it's the Champlain basin watershed and unimpeded storm water flows into the lake carrying phosphorus and other pollutants.	Ian Stokes		No response necessary
162	MTP	5	Note: higher VMT also leads to wear and tear of pavement. (Wear rate also depends on factors including axle weight and speed).	Ian Stokes		Thanks, this is a legitimate point.
163	MTP	5	"Our Rate" Clarify - is this paragraph starting 'Our' specific to Chittenden County or national?	Ian Stokes		Change has been made.
164	MTP	6	Reducing VMT (as well as axle weight and other factors) can reduce road wear and tear and hence maintenance and repair costs.	Ian Stokes		Thanks, this is a legitimate point.

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165	MTP	6	Could refer to the CCRPC Active Transportation report here. It includes a detailed section on Health Benefits (Pages 11-14). http://www.ccrpcvt.org/wp-content/uploads/2016/01/CC-ATP-Final-Plan-Revised-March-2017.pdf	Ian Stokes		A new section on Transportation and Public Health has been added to the Existing System chapter
166	MTP	7	There may be better metrics. For example, (from 2010 Census data) 80,403 Vermont residents commuted a total of 564,032 (linear) miles each way in a day, and 459,843 of these miles (82%) were by 57,283 commuters (71%) in a SOV.	Ian Stokes		Thanks for the suggestion. We selected % commuting by SOV for the first ECOS Plan in 2012 and plan to continue tracking this into the future. We can discuss alternative indicators for future reporting.
167	MTP	7	Is there any measure of people who don't commute? Personally, I have gone from commuting 5-days a week to 2 or 3 days a week as working from home has become much easier with internet access.	Andy Watts		The Census does track people who work from home. However, I'm not sure it does this by daily or weekly breakouts.
168	MTP	7	Caption is confusing - delete "non-"	Ian Stokes		The caption was revised.
169	MTP	8	Additional comment on how to achieve a 10% reduction below current trend lines, i.e., to begin to close the gap between our County/State performance and the national standard set by UK/Sweden. As stated, one must adopt "systematic safety" investments as first step in "Vision 0" (adopt obviously). That means for Chittenden investments first and foremost investing in no regrets safety improvement, first and foremost roundabouts. Champlain Parkway re-design advocated by the Pine Street Coalition is a perfect way to start--besides PSC approach would save funds which could add more safety content. All major intersections should be immediately evaluated for roundabout conversions and projects for the best safety gain pushed forward in project priority and those without a strong benefit pushed back--"systematic safety." I have regularly advocated this to you in your annual workplan.	Tony Redington Burlington		CCRPC has been working closely with VTrans to improvement safety through various initiatives. This is an evolving topic that will likely be covered in more detail in future plans.
170	MTP	9	Page 7 - 10 has an interesting series of charts with regard to Safety Performance Measures. To see the units of #1 thru 5 at bottom of page 7, one has to look back at page 6. This is also true of the 5 charts that follow. Suggest restating Rate = Average Fatalities per 100 million VMT somewhere near charts.	John G		This section has been reorganized to move the explanation of the safety targets to the section before these charts.
171	MTP	9	It would be helpful to express these targets in both absolute numbers and rates. The CCRPC must also establish a figure for the County or the very least the percentage of the State--otherwise the County fails either the letter or spirit of the federal policy that their funds move safety in a meaningful way forward. Further, there should be an analysis on how the improved safety is to be achieved and what programs and investments will be made. This allows for an accounting at the first evaluation in five years. Because there is no indication that either the FHWA or AOT offices take these regulations and policy direction is no excuse for our community to do the same.	Tony Redington Burlington		The federal safety measures that both VTrans and CCRPC developed targets for include both numbers and rates. The measures are: 1) Number of Fatalities; 2) Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT); 3) Number of Serious Injuries; 4) Rate of Serious Injuries per 100 million VMT; and 5) Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries.

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172	MTP	9	<p>Safety US has 20,000 excess deaths each year and we went from 16th to 17th among modern nations--we once were number 1 in safety. State likewise about 40 excess deaths alone yearly, the County about 10. U.S. and individual states numbers can be found at Insurance Institute for Highway Safety http://www.iihs.org/iihs/topics/t/general-statistics/fatalityfacts/state-by-state-overview Sweden, essentially tied with the U.K. for the lowest fatality rate, adopted a "Vision 0" highway fatality approach in law in 1997, two decades ago. The Swedish fatality rate is half that of the U.S. The Vermont rate of fatalities per 100 million vehicle miles of travel, about 0.85 (2014-2016), compares to the 1.16 (2016). But—assuming the Chittenden/Vermont rate comparable relatively to the U.S. and Sweden—our Vermont/Chittenden rate would be half, or about 0.42. So, the Vermont annual excess deaths are about 40 and serious injuries (again assuming the Swedish and UK fatality rate to Vermont injuries) amounts to 160 annually.</p> <p>Since Chittenden County is about 25% by population, the current excess deaths on our highways and streets are 10 fatalities and 40 serious injuries yearly. A fatality alone amounts to about a \$6 million each social cost and serious injuries \$126,000 (AAA study by Cambridge Systematics [2011] http://newsroom.aaa.com/wp-content/uploads/2011/11/2011_AAA_CrashvCongUpd.pdf Also note the federal study The Economic and Societal Impact of Motor Vehicle Crashes 2010 (Revised) (2015) https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013</p> <p>Ⓜ reasonable goal for a five year period would be to decrease our County rates by at least 10%. This can only be done by investing in "systematic safety," i.e., projects identified to reduce fatalities and serious injuries to all modes—but particularly to those who walk and bike because this segment of injuries and fatalities has increased disproportionately to other modes (yes, our U.S. fatalities began to increase in 2015, up double digits for the 2014-2017 period, the biggest increase in a half century). Note the Vermont jump for 2017 up to 69 (Free Press January 2), highest since 2013.</p>	Tony Redington Burlington		Thank you for your comments and information. The CCRPC is working collaboratively with VTTrans to address safety and reduce serious injuries and fatalities on our roadways.
173	MTP	10	Would be helpful to provide rates per vehicle mile for serious injuries and some measurable rates for walk/bike injuries/fatalities. As you know Burlington has the "dirty 17" intersections averaging one pedestrian injury a year (including a fatal for the 2011-2014 period tabulated). Some of the "dirty 17" could be easily and quickly be converted to mini-roundabouts--not all projects like the "intersection of death" in Burlington have to take a decade from completion of base design!	Tony Redington Burlington		Please see response to similar comment above.
174	MTP	12	Poly. (5_yr F& SI Avg) at the bottom right implies that a polynomial curve was used for best fit line for the points displayed. Does such a curve show us moving toward or away from the target of 39.4 non-motorized serious or fatal crashes?	John G		Not sure. This question best directed to Bruce Nyquist at VTTrans.
175	MTP	16	Blue column in this bar chart is obscured, but numerals give numbers.	Ian Stokes		No response needed.
176	MTP	19	Define/explain School tripper service as adult public riding in school buses, or students riding free in regular bus routes? http://ridegmt.com/school-trippers/	Ian Stokes		School-Tripers is the service GMT provides to the City of Burlington for school transport. This is in lieu of school buses. These services are open to the general public as well.
177	MTP	20	typo - "below"	Dave		Will correct.
178	MTP	21	InterCity Bus: Unlike GMT buses, these services do not encourage bringing bicycles on buses - discouraging mixed-mode travel.	Ian Stokes		Legitimate point but this service is also vital to people with disabilities and people that do not have access to a private vehicle.
179	MTP	72	<p>Abandon this project, once and for all. It is 2017, not 1957. When confronted by the climate crisis, and fully aware of the land-use problems caused by private automobiles, the last thing that any sensible planner would do is inject car traffic into the center of the city with a highway.</p> <p>The end of I-189 is the logical place for a freight intermodal facility and an intercept parking lot with excellent shuttle service.</p>	Peter Duval		Champlain Parkway is considered a committed project because the planning and design has been completed. There has been a lengthy public and environmental review process and the design selected is the preferred alternative.

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180	MTP	73	Exit 14 is too complicated for an intercept park & ride. By the time there is any planning for it in this location, private automobiles will no longer exist. If any intercept parking should be done, the wasteland at the end of I-189 is the logical location, accessible by car from major highways, with a straightforward transit corridor to downtown.	Peter Duval		Exit 14 was identified as a priority location for an intercept park-and-ride lot in the 2011 CCRPC Park-and-Ride & Intercept Facility Plan. Additional planning would be required before advancing a construction project in this location.
181	MTP	74	Signals are obsolete and dangerous. Any civil engineer who specifies a traffic signal anywhere a roundabout (including mini-roundabouts) could be built should risk losing their PE license.	Peter Duval		Project development studies consider all reasonable alternative and select the alternative that best meets the purpose and need while minimizing impacts. Roundabouts are considered for all intersections and are recommended when deemed to be the best solution.
182	MTP	74	Signals are obsolete and dangerous. Any civil engineer who specifies a traffic signal anywhere a roundabout (including mini-roundabouts) could be built should risk losing their PE license.	Peter Duval		Project development studies consider all reasonable alternative and select the alternative that best meets the purpose and need while minimizing impacts. Roundabouts are considered for all intersections and are recommended when deemed to be the best solution.
183	MTP	74	Signals are obsolete and dangerous. Any civil engineer who specifies a traffic signal anywhere a roundabout (including mini-roundabouts) could be built should risk losing their PE license.	Peter Duval		Project development studies consider all reasonable alternative and select the alternative that best meets the purpose and need while minimizing impacts. Roundabouts are considered for all intersections and are recommended when deemed to be the best solution.
184	MTP	74	Signals are obsolete and dangerous. Any civil engineer who specifies a traffic signal anywhere a roundabout (including mini-roundabouts) could be built should risk losing their PE license.	Peter Duval		Project development studies consider all reasonable alternative and select the alternative that best meets the purpose and need while minimizing impacts. Roundabouts are considered for all intersections and are recommended when deemed to be the best solution.
185	MTP	74	Signals are obsolete and dangerous. Any civil engineer who specifies a traffic signal anywhere a roundabout (including mini-roundabouts) could be built should risk losing their PE license.	Peter Duval		Project development studies consider all reasonable alternative and select the alternative that best meets the purpose and need while minimizing impacts. Roundabouts are considered for all intersections and are recommended when deemed to be the best solution.
186	MTP	76	This should be a roundabout, not a traffic signal, nor preparation for signalization.	Peter Duval		VTrans completed a scoping study with input from Jericho that included two public meetings. The preferred alternative was selected with local input.
187	MTP	76	It is time to stop building, and planning to build, infrastructure for the petroleum age.	Peter Duval		This long range plan reflects our best effort to predict the future demands on our transportation network. CCRPC is engaged in a continuing transportation planning process that will reflect trend changes to the best of our ability.
188	MTP	78	Close Exit 15 to automobile traffic, instead.	Peter Duval		Closing Exit 15 would have implications throughout our transportation network that would have to be evaluated before a recommendation to close the interchange could be made. I-89 draws traffic from local roads so it would likely result in greater congestion in other areas. Modification of the I-89 system would also require FHWA approval since FHWA has oversight over the interstate system.
189	MTP	122	In August 2017, the SB Council joined the State of Vermont and Burlington in the Vermont Climate Pledge Coalition. This effort seeks to have our cities/state meet the obligations of the United States in the UN Paris Agreement. This effort should be noted in our plan and the specifics of the UN Paris Agreement that we set as goals (20% reduction in GHG (human greenhouse gas) emissions by 2025 should set within the plan for us and, upon consideration, by the County. Specific steps regarding the largest producer of GHG (transportation -- representing around 80% of GHG production) should be laid out. This is a vital investment in our global future that needs to be stated and set now, especially as our federal leadership has moved in the opposite direction. This rises separately alongside the energy goals set for us by 2050, and the urgency and impact of transportation GHG reductions needs to be acknowledged, emphasized and set for the short-term and is certainly within the scope of the MTP for a 2025 first target with 2035 and 2050 goals as well. Reliance on electric vehicle changeover is not entirely realistic, and seeking legislative help may well be needed in coaxing people out of their gas-driven vehicles and nudging them into civic-minded ride-sharing, mass transit, business-sponsored transportation, and other innovative initiatives is needed now.	Chris Shaw	South Burlington	Joining the Vermont Climate Pledge Coalition is decision for the CCRPC Board. Staff will bring this comment to the Long Range Planning Commission at their January 11th meeting for discussion and possible recommendation to the Board at their January 17th meeting.
190	MTP	124	Need to focus on the key connection points between Burlington and surrounding suburbs if we're ever going to see any change in SOV trips between towns. BTV is effectively cut off by 89/189 or major intersections at every single in/out point. The end of North Ave/Plattsburg ave to Colchester. Riverside/Colchester Ave to Winooski, Main St. to SoBurl & Shelburne/Pine to SoBurl are all effective "dead ends" for any sort of real bike connectivity unless you're incredibly confident on a bike.	Liam Griffin		We agree that we need improve bike connections between Burlington and neighboring cities and towns. We are currently working on a number of scoping studies to address these connections. See information on the CCRPC website: http://www.ccrpcvt.org/

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2	Category	Page #	Comment	Commenter	Municipality	Response
191	MTP	N/A	As a senior citizen I would like to use the bus more often but it only comes every 30 minutes. I would also like to shop and go to restaurants in Colchester but there is no transportation in the bay section of Colchester. As Vermont ages we need more and better public transportation.....	Linda Deliduka	Colchester	Thanks for your comment. The MTP recommends improvements to all transit services including 15 minute headways for certain GMT routes and increases in weekend services.
192	MTP	N/A	<p>I have been a member of the South Burlington Energy Committee since 2009. During that time I have become increasingly aware of how important transportation alternatives are to fighting our impact on Climate Change.</p> <p>I appreciate the amount of work that the CCRPC and community representatives have done on the recent Metropolitan Transportation Plan. The call for 90% of new growth to be in areas designated for growth is excellent. However, new growth is likely to be between 1% and 2% a year and the needs of the existing built environment will remain very important. People who live where they live and work where they work will present transportation challenges for a long time to come.</p> <p>Additionally, there is one new major factor that needs to be considered in all future transportation planning and that is that at least 2 communities in Chittenden County have joined the Vermont Climate Pledge Coalition: Burlington and South Burlington. These two communities comprise about 40% of the county's population and as major work / shopping / service centers probably see an even larger percentage of the car and truck traffic in the county. The Climate Pledge member communities are working to meet the US Paris Accord commitment of 26%-28% reduction in CO2 by 2025. Clearly that can't happen without significant changes in our transportation system and in particular the way people commute to work and school.</p> <p>Although the new plan refers to better public transportation, bike paths and park and rides, I believe the plan should be reconsidered with the objective to help meet the Paris Accord commitment. If done, there would likely be more concrete proposals for reducing CO2 especially for people trying to get to work. Here are a few examples of Demand Management techniques that could be included or expanded upon: employer and regional programs to incentivize commuting alternatives, more and better local bus service, more commuter bus links and associated park and ride / capture lots and county wide programs to raise awareness of commuting alternatives. I am sure there are many other options beyond this short list.</p> <p>The CCRPC has been a powerful force for well managed growth in Chittenden County. Your reconsideration of the transportation plan in light of key member communities climate commitments will help cement our county's future and send a signal that local communities can make a difference in Climate Change.</p>	Don Cummings		Joining the Vermont Climate Pledge Coalition is decision for the CCRPC Board. Staff will bring this comment to the Long Range Planning Commission at their January 11th meeting for discussion and possible recommendation to the Board at their January 17th meeting.
193	MTP Overview	1	Why is there no section on safety as US has 20,000 excess deaths each year and we went from 16th to 17th among modern nations--we once were number 1 in safety.	Tony Redington	Burlington	There is a considerable discussion on safety in the MTP report but unfortunately not as much in the MTP summary document.
194	MTP Overview	1	1. Summary uses a traffic signal head to key the "Intelligent Transportation System Investments. The traffic signal in common usage is obsolete technology (a nation with safe roads like Sweden has more roundabouts than signals and replacing 40% of remaining signals with roundabouts). Traffic signals kill, injure, pollute, waste gasoline. As a symbol the traffic signal is comparative to the skull and bones symbol. Put a roundabout as the symbol of new technology. Oh, does it make a difference that a signal over a single lane roundabout increases pedestrian and car occupant serious and fatal injuries by 900%.	Tony Redington	Burlington	Intelligent Transportation Systems is a broad category covering a wide variety of project types. A signal head symbol was used, depicting smarter signal technology, because we think it is the most understandable image representing this category for the general public. We recognize that specific project characteristic will determine the ITS project type selected for implementation.
195	MTP Overview	2	<p>I think the \$74 million that is proposed for highway expansion could be much better spent on investments that will reduce congestion and contribute to meeting our important energy goals. Expanding the highway will only encourage people to continue driving long distances to work alone, rather than carpooling, bicycling, riding public transit, telecommuting, or living close to work. Even with our shift to electric vehicles, driving long distances alone still uses a lot of energy, which makes it difficult to meet our renewable energy goals and requires more land devoted to renewable energy generation.</p> <p>Investments such as affordable housing near existing and future jobs, jobs near existing affordable housing, safe bicycle infrastructure, carpool/park and ride lots, transportation demand management programs, etc. can have long-lasting impacts on reducing congestion, while reducing energy consumption, improving air quality, health, community, and the economy. Expanding the highway temporarily reduces congestion, while increasing energy consumption, worsening air quality and health, increases highway noise, and sends more fuel dollars out of the region. Please get creative in solving congestion problems by focusing on people, not cars or traffic.</p>	Keith Epstein		The \$74 million proposed for interstate and interchange projects is just over 4% of the total funds coming to Chittenden County over the next 34 years. The plan development process seeks to balance the diverse needs of the traveling public and freight transportation. Results from the regional transportation model suggests that even with concentrated development, expanded transit and bike and pedestrians facilities, some improvements to the interstate will be necessary by 2050. Further planning is required to understand the need to expand I-89 and improve access to the Interstate.

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196	MTP Overview	2	GMTA and SSTA offer limited ADA transportation. My company <Big Brother Security Programs, Inc 802 242-4440> has offered to contract with GMTA and SSTA to provide ADA transportation services for oversized chairs (Bariatric) as well as emergency transportation. Those companies have refused to even consider us providing ADA services. We operate on holidays and Sundays, 24/7. They do not. We permit riders to stop at pharmacies or multiple locations. They do not. We offer variable time pick up and drop off times for medical procedures like dialysis. They do not. We offer ADA transportation between counties. They do not. We offer ADA transportation for medical needs or emergencies. They do not. We properly train all our drivers in the safe handling of ADA transports. They do not. We offer fuel <2X or better> efficient late model vehicles designed especially for ADA transportation. They do not. We train and are equipped for the transportation of individuals needing oxygen. They are not. We are equipped to transport oversized wheel chairs (both length and width). They are not. We take special need people from our vehicles safely out of the vehicle to their destination in person. They do not. We permit the transportation of individuals with support animals and individuals like aids <for the same price>. They do not. We transport from medical providers from and to other counties and States. They do not. Perhaps some of the millions of dollars spent by the local transportation services could be used to contract with private sector firms to provide many different types of services rather than having a one size fits all system. Many needy ADA riders are prevented from receiving reasonable accommodations because federally subsidized local transport companies have inflexible rules and limited ability to accommodate all handicapped persons needs. This could be easily fixed by using local contractors in the private sector to provide the necessary transportation. Handicapped persons are regularly denied services where services could easily be provided. There are no current plan. to address these issues.	Shelley Palmer		See responses to this comment above. We would like to reiterate that the CCRPC is not party to GMT's contracting procedures. GMT has an open bid process for ADA services and a defined selection procedure. We will send this comment to GMT.
197	MTP Overview	2	Recommendation Highlights must include passenger rail as a separate category as distinct from local public transit. The U.S. and Vermont are a backwater Nation/State when it comes to all public transportation--particularly rail. We can in the next 30 years of this plan attain a status enjoyed by nations like Taiwan and South Korea and several central European nations when it comes to rail passenger transportation as the backbone of a modern transportation system--here in Chittenden County it is a must! Put the resources in by diverting practically all interstate investments as over time congestion will drop as a shift away from car travel for many reasons (principally demographics and future housing densification) takes place. Recommendations--listed here for rail passenger: (a) intercity network with about \$100-200 million investment including commuter rail between Burlington and St. Albans/Montpelier-Barre/Middlebury and (b) regional service to Concord, NH/Boston, Montreal and NYC via Rutland and Brattleboro. Local public transit to include para-transit for seniors and light rail lines Burlington north-south and waterfront-east via Marketplace to UVM/Champlain College. Light rail requires a \$150 million capital investment.	Tony Redington	Burlington	The CCRPC supports rail improvements in the region to facilitate intercity passenger rail, including the existing Amtrak services and the proposed Amtrak service to Burlington along the western corridor. The recommended MTP investments attempt to balance all modes of transportation given the reality of limited federal and state funding and the fact that most of our funding (70%) will go towards maintaining our existing transportation system.
198	MTP Overview	3	As a Pinewood Manor resident of 13 yrs, I can attest that Rt 117 is one long parade of cars coming West from Richmond area to Global Foundaries (and Burlington) in the morning. Will buses run at times that coordinate with shift changes? It seems to me that businesses could coordinate with transportation services and encourage ridership through incentives.	Cheryl Van Epps		Specific transit schedules are determined by GMT and GMT regularly reaches out to transit users to help determine the most advantageous schedule for each route.
199	MTP Overview	3	If Essex Junction is going to be a rail stop serving a significant number of passengers, it will need to accommodate parking for the passengers- an absolute must. From my 13 yrs living here, what I've observed is there is not a real commitment from Village planners towards any such goal. They're focused on packing in more housing units into the 5 corners area. Parking is already terrible in this area (I avoid going to some businesses because of it, especially during rush hour) and will only become worse over the next few years as more housing buildings are added.	Cheryl Van Epps		CCRPC and Essex Junction are aware of the issue of parking at the Amtrak station. CCRPC recently completed a study that looked at transportation issues in the vicinity of the train station and made recommendations for improvements, (https://studiesandreports.ccrpcvt.org/wp-content/uploads/2017/01/Final-Scoping-Report-Essex-Junction-Train-Station-4-6-2016.pdf)

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200	MTP Overview	3	Spear street is a primary corridor for cyclist. It is a primary route for those commuting by bike into Burlington as well. Especially during the warmer months, a few hundred cyclists per day can be seen using this route. Spear street has several sections in poor repair and without adequate shoulder. The length of Spear should really have a safe and legitimate bike lane both north and southbound. Preferably one that is separated from motor vehicle traffic for maximum safety. This is a concern that should be addressed sooner rather than later. Thank you.	Don Harmeyer		The project list in the plan includes bike/ped improvements on Spear Street north of Allen Road.
201	MTP Overview	1	As the Pine Street Coalition in Burlington has suggested, we need smaller, agile, electric buses running at 15 min. intervals on major roadways and recharged at night by the BED surplus. We need an intelligent Champlain Parkway that simply opens C1 with a roundabout connecting Pine to So.	Charles Simpson		GMT is currently evaluating their entire system as part of the NextGen Transit Plan. Champlain Parkway is in the Final Design phase and has included a robust public involvement process to arrive at the current preferred alternative.
202	MTP Overview	1	As noted on the main document, the role and impact of the Vermont Climate Pledge Coalition is not sufficiently acknowledged here. Burlington, South Burlington (August 2017) and the State of Vermont have stepped up to join this initiative and we expect the Chittenden County Regional Planning Commission to reflect those same goals. This is where it happens. We have stepped up to adopt the US's goals for the UN Paris Agreement and that would indicate a reduction in human greenhouse gas (GHG) emissions of 20% by 2025 as a first target. Our transportation represents 80% of our GHG emissions and the goal of "reducing congestion" at first take might seem to fit that goal, but in reality we know that widening roads and making them more convenient for gas-driven individually-occupied vehicles just increases VMT. Whereas, congestion provides an incentive for the operators to find alternative methods of transportation that help achieve the GHG reductions that we need. Our housing goals are the first step in this direction to reduce VMT from more rural areas and we need to make this connection CLEAR for all parties in all towns. The development that is often decried within the core cities actually reduces GHG for all of us and addresses these goals. Please include the VT Climate Change Pledge Coalition goals and offer steps to reach them as targeted. Also arrange to include trackable transportation numbers that relate to these goals (GHG from transportation). Thanks	Chris Shaw	South Burlington	Joining the Vermont Climate Pledge Coalition is decision for the CCRPC Board. Staff will bring this comment to the Long Range Planning Commission at their January 11th meeting for discussion and possible recommendation to the Board at their January 17th meeting.
203	MTP Overview	2	Three years ago the Burlington City Council adopted the landmark North Avenue Corridor Plan. The 2.8 North Avenue Corridor Plan calls for a highest safety and equality for walk, bike, and vehicle modes including end-to-end cycle track (protected bike lanes), conversion of at least three busy intersections to ultra-safe roundabouts—the first such plan and project in Vermont, perhaps in the nation. AARP for several years and this past year AAA both support signal to roundabout conversions for safety. Co-safety leader Sweden which adopted in law Vision 0 for highway deaths in 1997 now has more roundabouts than traffic signals and is converting 40% of the remaining signals to roundabouts (see OECD recent annual report), The North Avenue project enables all who can to walk and bike and truly brings world class design when State and nation which once number one now has sunk to a new highway safety low, 17th in the world with 20,000 excess deaths each year. Please include the North Avenue project front and center in the 30-year Chittenden County transportation plan.	Tony Redington	Burlington	Recommendations from the North Avenue Corridor Study are included in the MTP/ECOS Supplement 5 - See the MTP Project List.
204	MTP Overview	2	It's really easy to imagine more efficient road system, any time we go for a drive! So it's no wonder that road system funding approaches \$300,000,000, but alternate transit systems top out at 116,000,000, and doesn't include anything for rail. I have to wonder how it is possible to reduce carbon pollution when personal transportation is given so much priority. I believe we should stop development of new roads, and put all new capital spending into public transit systems. A light rail connector between Burlington and White River, and Burlington and Rutland, would reduce our dependence on motor traffic and our carbon dependence.	Steven Marshall		The CCRPC supports transit and rail improvements in the region. The recommended MTP investments attempt to balance all modes of transportation given the reality of limited federal and state funding and the fact that most of our funding (70%) will go towards maintaining our existing transportation system.

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1	2018 ECOS Plan Public Comments: First Public Hearing Draft					
2	ECOS Plan Section	Topic	Comment	Commenter	Municipality	Response
3	CEDS		Kathi Walker O'Reilly has reviewed the CEDS draft and had two comments. On page 5, she states there is the need to promote the skilled craftsmen as manufacture state concerns about the challenges of the future workforce. While VTC and VMEC are working on this, there is more that needs to be done. On page 18, she comments that Colchester is the only community in Vermont to be named to Money Magazine best places to live in America in both 2015 and 2017.	Kathi Walker O'Reilly via Colchester Dept. Head memo	Colchester	Thank you for these comments. In Supplement 2 of the ECOS Plan, there is a list of recent accolades. We have updated this list to include awards won from 2013-2017, including Colchester's inclusion in Money Magazine lists in 2015 and 2017. As for the skilled craftsmen point that you raise, we have incorporated the State Workforce Development System Report of Findings & Recommendations into our latest draft, and added an action to discuss GBIC and CCRPC's future work on the recommendations raised in the report. Ensuring that workforce training programs are providing an adequate number of skilled manufacturing workers is one of the report's key actions.
4	CEDS	childcare	You call out childcare affordability in the economy update. We'd also like childcare capacity and access to be highlighted. We need more affordable options - AND we also just need MORE options and spaces.	Jessie Baker	Winooski	Thank you for this comment. Where the draft identified "lack of affordable child care" as a weakness, we have instead included "lack of child care options for working families, especially affordable child care." The ECOS Plan's main discussion of childcare is in the Education section (Strategy 8). We have added a reference to this section in the Economic Resilience section of the CEDS and in the CEDS Implementation section.
5	CEDS	Workforce Development	Collaborate to advance multi-generational workforce (giving seniors an extended work force experience that is flexible and meeting employer/employee needs)	Deb Sachs		Our Comprehensive Economic Development Strategy (Supplement 4 of the ECOS Plan) identifies "Engaging a highly skilled and trainable retirement age population" as an Opportunity in our SWOT analysis.
6	CEDS	Workforce Development	Encourage and support new manufacturing start-up businesses that address and reduce solid and organic waste. For example, Recycle Balls-- http://www.recycleballs.org/	Deb Sachs		While our Comprehensive Economic Development Strategy (Supplement 4 of the ECOS Plan) does not identify business types at such a specific scale, such a business would absolutely be encouraged in the plan's identified target sectors of clean tech/green tech, and possibly high value-added manufacturing.
7	CEDS	Workforce Development	Need to make sure that the CEDS is updated to includes an appropriate discussion of relevant policies from the State Workforce Development System Report of Findings & Recommendations: http://gbicvt.org/files/2018/01/S.135_WorkingGroup_WorkforceDevelopment_FinalReport_Legislature_1.15.18.pdf	Internal staff comment	N/A	Data from this report were added to the Workforce and Recruiting section of the Competitive Assessment. Action 3 was edited to describe GBIC and CCRPC's future work on the actions identified in the report.
8	CEDS	Broadband Internet	Make sure that the state's broadband plan is incorporated as appropriate	Internal staff comment	N/A	The Vermont Broadband Action Plan's specific goals for internet speed availability have been added to Action 1.
9	CEDS	SWOT Analysis	Regionalization of our economy services is going to be something that will increase over time, and will probably really benefit Chittenden County. This should be recognized in the plan. Additionally, it's a benefit that we have clean drinking water here, which a lot of places in the country do not have.	Andrea Morgante	Hinesburg	Thanks for your comments. We have made these changes to the Strengths and Opportunities section of the SWOT.
10	CEDS	Lake Champlain TMDL	The way the TMDL is discussed (last bullet, page 18) seems like it's blaming the TMDL for the cost of lake cleanup, rather than blaming the pollution that has happened in the past. Andrea will send us suggested language to change this.	Andrea Morgante	Hinesburg	Thanks for your comments. We have changed this bullet to read "Funding the water quality projects to address high phosphorous levels and other pollutants in surface waters, including Lake Champlain, will present financial challenges for municipalities necessitated by (See the Lake Champlain TMDL for more information)." We've also changed the threat from 'cost of implementing the TMDL' to 'phosphorus pollution'.

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11	Energy		I have participated in the Planners Advisory Committee and provided comments in the development of the energy section as it was developed. This energy section draft includes many of the requirements to meet the State's energy plan of 90% renewables by 2050. To accomplish this, the draft energy section provides a wide variety of considerations for the county including increasing renewable energy production and energy conservation measures. While Colchester did not provide many constraints to the siting of solar and wind, many other communities have created significant constraints that may push energy development to less restrictive areas such as Colchester. The concepts of how to reduce energy needs are very conceptual and nonbinding at this time. This will allow communities to explore energy reduction strategies in a variety of ways. Overall, the energy sector will better inform member communities and provide the data necessary for the development of local energy plans without binding communities to specific measures.	Sarah Hadd via Colchester Dept. Head memo	Colchester	Thank you for your comment. No edit needed.
12	Energy		"Wind -Base" is missing from the Renewable Electric Generational Potential table on page 6	Billy Coster	Vermont Agency of Natural Resources	Thanks for pointing this out. This has been added to the table.
13	Energy	Glossary	Develop a glossary and ensure that renewable energy does not include "clean renewable natural gas".	Deb Sachs		CCRPC has a complete glossary on the website. A link to this glossary has been included in the Plan.
14	Energy	Phrasing	I noticed some omissions of three phase power lines in Milton	Deb Sachs		Thanks for you comment. We changed the symbology of the line data to improve the readability of the map. We are using the data available from the Vermont Center for Geographic Information.
15	Energy	Biomass	In comments sent to PSD on the draft energy plan, the Agency recommended CCRPC consider adding more discussion about the source and management of woody biomass to meet wood heating targets, including the share of these resources that could be sustainably harvested from Chittenden County. The Agency finds the ECOS Plan could still benefit from such additional analysis; at a minimum, a description of the Woody Biomass Resource Areas map should be provided. PSD's Guidance for Regional Enhanced Energy Planning Standards provides direction on the level of analysis expected on this topic and sample actions CCRPC may want to consider adding to the ECOS Plan.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your thorough review of the ECOS Plan, including the energy sections! We have added more detail and context in several places: 1. In Supplement 6, we have added a description to explain what the Woody Biomass map shows. 2. In the main piece of the plan, we have added an additional action to Strategy 4, Action 2 - Working Lands Implementation, to show our support for sustainable harvesting of forest products to advance our energy goals. 3. On Page 49 of Supplement 2, we have summarized the 2010 BERC Vermont Wood Fuel Supply Study's findings on wood harvesting in Chittenden County, and explained that the county will continue to depend on importing wood products into the county for the McNeil Generating Station as well as individual wood heat systems.

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16	Main Document	Preferred Sites Map	Can you tell me about the “Closed Landfill” features? The map shows two in Shelburne, and I question whether any should be shown. I have no idea what the one close to Route 7 is about. The one between Thompson Road and Spear Street is indeed an old town dump. But since these aren’t capped landfills of the type that might be attractive as ‘cheap space’ in more modern times, does it actually make sense to portray them?	Dean Pierce	Shelburne	Thanks for your comment. Staff checked in with the State Waste Management Program and only those landfills which have post-closure certification are eligible for preferred site status. The map has been updated to reflect this new information.
17	Main Document		I don't see this to be the case in Vermont.	Amy Saar		Thank you for your comment. I’m not sure if your comment is about crumbling infrastructure or communities isolated from economic opportunities. We believe the two to be true to some extent, and something we want to be mindful of as we move forward.
18	Main Document		What is the evidence that physical activity and tobacco use are the direct result of socioeconomic level? What about geographic location and educational quality and parents educational achievement?	Amy Saar		Socioeconomic status is often measured as a combination of education, income, and occupation so commenter's point is included. This was clarified in the text in the Main document, and these references were added to Supplement 2, Health section: https://www.cdc.gov/tobacco/disparities/low-ses/index.htm ; and https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1732269/pdf/v057p00029.pdf .
19	Main Document		I believe Ensuring Equity is implicated in both K-12 proficiency and workforce development.	Barbie Alsop		Great point, thanks for making this suggestion. We will add these check marks to the chart on page 17.
20	Main Document	Scenario section	Add a bit more detail on the benefits of the 90% land use component.	Internal staff comment		Added to the Main document.
21	Main Document	Health & Safety	Repeat of paragraph above.	Jacob Hemmerick		Thank you for noticing that the paragraph was repeated. The extra paragraph has been deleted and replaced with the correct text.
22	Main Document	Existing Utilities & Facilities Map	What scale of cell tower does this include?	Jacob Hemmerick		Thank you for your comment. We assume this comment is from the fact that only 4 cell towers are on the map. We've discovered the data set we were using from the state is not accurate enough. We've changed to e-911 data and we now have 55 cell towers. Thank you for noticing this.
23	Main Document	Introduction	Consider adding to the end of the last paragraph "It is not intended to be a prescriptive planning tool supporting or opposing any specific projects and it is important for the Commission and its municipalities to maintain flexibility in their future planning initiatives."	Vermont Gas	N/A	Thank you for your comment. We did not make this change. We found that the Plan would not prevent distribution line extensions from happening so long as these extensions are within the areas planned for growth and natural resources are avoided/mitigated. Because we don’t believe the Plan will have a negative impact on distribution extensions, we decided that the statements on the intended use of the Plan were too broad and chose not to add them to the Plan.
24	Main Document	Introduction	Add "energy systems" to the list of infrastructure facilities. Whether natural gas infrastructure or adequacy of the electric grid, specifically mentioning energy infrastructure will provide flexibility in addressing areas slated for growth.	Vermont Gas	N/A	Thank you for your comment. We do agree with the need to include “energy systems” in our actions related to areas planned for growth. Strategy 2, Action 1 has been revised to include energy systems, instead of changing Goal 16.
25	Main Document	Introduction	Goal 17: Consider rephrasing from "Transform Chittenden County's energy system to a cleaner ... " to "Move Chittenden County's energy system toward a cleaner ... " This will allow room for cleaner fuels to replace dirtier fuels even if they are not yet renewable.	Vermont Gas	N/A	Thank you for your comment. We made the change.
26	Main Document	Strategy/Actions	Action 2.4.a.ii: Add "renewable natural gas" to the list of examples for decreasing fossil fuel usage.	Vermont Gas	N/A	Thank you for your comment. We did not make this change because the Plan currently supports biogas which is broad enough to include RNG and the Plan does not preclude renewable natural gas deployment.

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27	Main Document	Strategy/Actions	Add an additional bullet "Using existing energy infrastructure, including natural gas transmission and distribution infrastructure to advance the use of renewable fuels such as renewable natural gas that could be transported and delivered through existing infrastructure, so long as investments are made to keep this infrastructure modern, well-maintained, safe and reliable."	Vermont Gas	N/A	Thank you for your comment. We did not make this change because the Plan currently supports biogas which is broad enough to include RNG and the Plan does not preclude renewable natural gas deployment
28	Main Document	Strategy 4	Section 4 of the Main Document identifies the goal to “increase investment in and decrease subdivision of working lands and significant habitats....” Within Subsection 1 – Habitat Protection, it is important to also acknowledge protections for priority forest blocks, connectivity blocks, surface waters, and riparian areas. Although higher protections are warranted in highest priority areas, priority areas still play a vital role in providing local connectivity.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. This language was added to Strategy 4.
29	Main Document	Strategy 4	The Agency supports CCRPC’s continued efforts to assist municipalities in conducting local inventories and developing development review regulations (p. 34, bullets b and c). Inventory work should not be limited to just high priority areas and could be expanded to include natural community mapping (as noted in the Science to Action example). The value of including natural community mapping is the additional detail regarding special features within the highest priority and priority blocks, as well as within surface water and riparian areas.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. This language was added to Strategy 4.
30	Main Document	Strategy 4	Future regional mapping efforts could identify what resources are being protected and to what standard. Tiered maps can show different tiers of resources based on scale (i.e., small scale rare species locations and wetlands versus large scale forest blocks) and protection standards. Small scale resources may require higher standards, where large scale resources may accommodate some development and require less protective standards to maintain functions and values.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. An action was added to Strategy 4 to address this suggestion.
31	Main Document	Top Ten Actions	This is a summary of input provided at the 4/21 public hearing - Action 2: Expected a train to come to Richmond 25 years ago, and will need to wait another 25 years. Action 7: Only includes traditional health providers and not necessarily population health; add social service providers. Action 8: How did autonomous vehicles get such prominence because they aren't going to solve our problems?	Bard Hill	CCRPC Board - Richmond Rep	Thank for your comments during the hearing. We clarified this statement to include the partners that we do work with, but did not limit it to others. We also added some caveats to the autonomous vehicle action to address your concern.
32	Main document	Energy constraints & suitability	In reviewing a new solar application on a parking lot, it isn't clear that existing development (i.e. rooftops or parking lots) take precedence over suitability constraints, which Staff believes is the intent.	Internal staff comment		Staff believes this isn't the intent and a previous version of the language made this more clear, and has added a sentence to the first constraint policy to say: "Renewable energy generation sited on an existing structure or parking lot complies with this policy."
33	Main Document	Future Land Use Map	Potential change from Underhill depending on whether zoning is adopted at Town Meeting.	Internal staff comment		The Underhill Village has been changed to mimic their newly adopted zoning district boundary; this boundary also includes the state designated village area.
34	Main Document	Strategy 4	Overlaying Vermont Conservation Design Highest Priority areas in Chittenden County with towns’ current zoning and/or their future land use maps could be a future analysis to identify what percent of the highest priority forest blocks are prone to development. New mapping tools such as Vermont Conservation Design4 and BioFinder5 created since 2012 will be useful in future natural resource analyses.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. This concept was added as an action under Strategy 4.
35	Main section	Strategy 3	A typographical error appears in this section and following sections: readers are referred to Supplement 4 for a description of state and local known constraints. That description is provided in Supplement 3.	Billy Coster	Vermont Agency of Natural Resources	Thanks for pointing this out. We've corrected the reference to Supplement 3 in both Strategy 3 & 4.
36	MTP	Indicators/Performance Measures	Add whether the data is County or State level in the titles?	Internal staff comment		These have been clarified.

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37	MTP		Bryan Osborne is the Chairman of the Technical Advisory Committee (TAC) and has provided informal comment on the development of the Metropolitan Transportation Plan (MTP). He had noted concerns about the long term impacts of the proposed MTP as demonstrated by the RPC's transportation modeling. The plan as drafted will push more interstate congestion northerly toward Colchester in the future. However, given that the MTP must operate within established fiscal constraints the only options are to remove any capacity upgrades to the interstate system, or focus entirely on upgrades to the interstate and eliminate any investment into local projects. Neither of these options are practical. Therefore he believes there is not a practical solution to this issue within the current life of the plan and that it is a very logical and practical plan to which he has no further comments.	Bryan Osbourne via Colchester Dept. Head memo	Colchester	Thank you for your comment. No edits needed.
38	MTP		VTrans comments: Staff addressed generalized comments related to numbering tables and charts, adding titles/subtitles, differentiating between statewide vs Chittenden County statistics, adding sources to graphics (to be completed). Many comments were related to minor edits or clarifications, table formatting, adding descriptive text under each graphic for the transportation indicators and performance measures, updating language for Montrealer Amtrak service, clarifying disparity between transportation-related GHG emissions from VT vs transportation-related GHG emissions on a national scale, questions related to individual projects highlighted in the transportation corridors sections, adding an introduction to the MTP project list, reevaluating the number of Burlington projects in the short-term timeframe.	Amy Bell, Dave Pelletier		Thank you for your detailed comments. Your comments have been addressed.
39	MTP	Transportation/Energy connection	This is a summary of the comments presented at the 4/21 public hearing: We can't get to 90x2050 with the goals as currently stated in this plan. If you have a glossary, add rail to the public transportation definition. I absolutely disagree with widening I-89 which is a 20 minute problem. Instead invest the \$74 million in public transit/commuter rail. Consider the use of salt on our roads which eats away at the infrastructure and lowers the life expectancy of it. Revisit the vision and really look at a future where we shift from cars to transit. Increase investment in TDM programs to address climate change. Consider a regional transportation authority to oversee transportation investments.	Deb Sachs		Thank you for taking the time to come to the public hearing and providing comments.. The issues of widening I-89 between Exits 14 and 15 was discussed at the TAC and Executive Committee meetings and the consensus was to leave this project in the MTP as we strive to have a balanced plan that addresses all transportation modes and needs in the county. The MTP also includes substantial public transit investments and calls for improvements on all existing GMT services in the county.
40	MTP	Transportation/Energy connection	This is a summary of the comments presented at the 4/21 public hearing: This Plan is absolutely not going to work. We have a CO2 problem that is going to destroy our civilization and this is a 'business as usual'/'status quo' plan. Autonomous cars are not going to save us. Everything needs to shift to electric, though we may use diesel in the in between. Infrastructure around the car is our biggest problem; and continuing to build in and invest in more fossil fuel infrastructure is a total disaster.	David Blittersdorf		Thank you for taking the time to come to the public hearing and providing comments. This Plan calls for moving away from fossil fuels and towards sustainable, renewable energy sources albeit it at a slower pace than you are suggesting. However, as we implement the Plan we will be doing what we can, within our ability, to be moving off of fossil fuels. In addition, we will revisit the Plan again in five years.
41	MTP	transit	We'd like to see a priority around extended public transportation access across Chittenden County communities. We have decent access in Winooski but sometimes it is hard for our non-car-owning population to get to job opportunities outside of Burlington and Winooski.	Jessie Baker	Winooski	The current MTP includes significant improvements in public transit service in Chittenden County.
42	MTP	bike facility	Bike project on Ferry Road is not included on the list.	Fritz Tegatz	Charlotte	The Active Transportation Plan identifies and prioritizes regional bike corridors in the county, including Ferry Rd. in Charlotte. Various segments of these corridors have been scoped and a preferred alternative selected and they are ready for design and construction pending funding but others still need to go through project definition/scoping before they become projects and could be included in the MTP list. The CCRPC could assist a municipality with scoping and then the municipality could apply for a VTrans bike/ped grant for implementation.

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43	MTP	Transportation Maps	MAPS--Show Vermont's existing rail system on a resource map, illustrating: 1) the overall Vermont rail system map (freight and passenger); and 2) the northeast rail system to show Vermonters and tourists regional connections and how one might travel by rail. Include on these resource maps all available transportation options including available multi-modal options (i.e., bus routes, train stations, transit centers, P&R locations, EV charging, car and bike share availability, shuttles, hotels and public parking locations. On the regional map, be sure to include Vermont's 11 train stations, all transit centers, including a symbol for inactive train stations to encourage member communities to recognize the future might include community rail.	Deb Sachs		Thank you for taking the time to review and provide comments on the draft ECOS document. The MTS map on page 17 does identify rail lines and active stations as well as transit hubs and other intermodal facilities. All of the MTP maps focus exclusively on Chittenden County and while wider statewide context can be informative, we have decided to limit the information presented to the area that the CCRPC has jurisdiction for.
44	MTP	Transportation/Energy connection	Add to the top ten CCRPC Next Steps: Explore how a broader sustainability/net zero energy vision of the regional transportation system in 2050 might look like. Could it include regional multi-purpose pathways, an expanded and convenient transit system, community train line and convenient stops in town and village centers with transit oriented designs, shared bikes and vehicles, and market rate housing options and mixed uses. Suggestion: CCRPC might commission a study to examine a proposed new community/passenger rail service (that complements the regional Amtrak service) connecting the five core towns of Chittenden County (i.e., BTV, So. Burlington, Essex Junction, Colchester, and Winooski). What if it were located on the former CIRC highway and state-owned ROW?	Deb Sachs		The draft MTP is moving in the right direction, accomplishing energy reductions in the transportation sector, by reducing Single Occupant Vehicle (SOV) travel through significant investments in transit, bike/ped facilities, and EV infrastructure. In addition, the MTP calls for increases in land use density that will allow for additional investments in non-auto modes in the future. This topic will be re-examined and further evaluated over the next several years and will be incorporated into future plans. The CCRPC will be open to studying a new community/passenger rail service (that complements the regional Amtrak service) in partnership with GMT, VTrans and others in future years - this request will have to go through the CCRPC's UPWP process.
45	MTP	transit	Study, explore and recommend to the VT legislature the development of an inland Port Authority and/or P3, a public/private partnership. This will enable and attract public private investments and partnerships to help develop expanded train and public transit service within our region.	Deb Sachs		This may be an appropriate task to undertake in our UPWP in partnership with VTrans, GMT and interested municipalities.
46	MTP	I-89 Widening	MTP--Remove/eliminate the proposed widening of I-89 between Exit 14 and 15 and other interchange improvements. Instead prioritize and re-direct investments to improve our public transportation system, a bus system that is more convenient, reliable and runs more often. Also invest in a connected sidewalk and multi-use path system and shared mobility options including ebikes, cargo bikes, carshare and truck share.	Deb Sachs		The \$74 million proposed for interstate and interchange projects is just over 4% of the total funds coming to Chittenden County over the next 34 years. The MTP investments and projects seek to balance the diverse needs of the traveling public and freight transportation. Results from the regional transportation model suggests that even with concentrated development, expanded transit and bike and pedestrians facilities, some improvements to the interstate will be necessary by 2050. A planning study will be initiated in the summer/fall of 2018 to fully understand the need to expand I-89 and improve access to the Interstate.
47	MTP	transit	Complement the improved fixed route bus service with flexible trip planning options (i.e., VIA Transportation, Inc) so that today's youth and elderly have confidence they can age in place and live in Vermont without a car.	Deb Sachs		CCRPC has been involved in planning for increased transportation options for all travelers and these conversations will continue and may be expanded in future plans.
48	MTP	Policy	Encourage adoption of new legislation--as in Washington state--supporting a "Mandatory Commuter Trip Reduction Act"--similar to Everett, Washington, since 1997, now operating 400 vanpools serving the region and its businesses.	Deb Sachs		This is a state issue. Currently, the CCRPC works with CATMA, GMT, VTrans and other partners on many TDM initiatives and we will continue to work on strategies to increase transportation options and reduce single occupant vehicle use.
49	MTP	transit	Adopt a public transportation definition that includes "passenger and community rail".	Deb Sachs		Passenger and commuter rail are not excluded from the definition of public transit. AMTRAK service is discussed in the plan and other services will be discussed if and when they become available.
50	MTP	Policy	Adopt 55 mph speed limits on Interstates-89 and I-91. Pair it with a public education campaign to highlight the benefits of slower travel.	Deb Sachs		Reduced speeds have both safety as well as environmental benefits but making such a change requires action at the state and federal level.

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51	MTP	Policy	Assess the “Clear roads policy”--and pass a “No clear roads” policy similar to other states, like Colorado. Limiting or eliminating road salt--will save billions of dollars in lose. Pair it with reduced speed limit. Road salt ruins our streets, roadways, bridges, vehicles, vegetation, critters and water quality.	Deb Sachs		Reducing winter salt application certainly has some benefits and VTrans is the appropriate agency to evaluate the pros and cons of such a policy change. Recommendations from this study could then be shared with municipal staff and officials.
52	MTP	Transportation/Energy connection	Commission a visioning process modeled after Net Zero Vermont’s “Sustainable Montpelier 2030 Design Competition” held in 2016/17. Focus on communities with train stations (western corridor, EJ, Winooski, Richmond and BTM). The process could be less comprehensive than Montpelier, as simple as a 2-3 day charrettes. See example of the Sustainable Montpelier 2030 project online--projects "Montpelier" at www.netzerovt.org	Deb Sachs		This recommendation would be best to make through our annual UPWP process in partnership with the affected municipalities interested in undertaking this effort.
53	MTP	Freight	Develop a containerized business for freight to allow more companies to ship materials by rail versus truck. Vermont doesn’t have this option to businesses. Freight shipping is much more efficient than trucking, approximately one third to one half the cost.	Deb Sachs		The ability to move freight via rail vs. truck comes with environmental and energy benefits. However, rail freight transport has been decreasing relative to truck for decades in VT. This recommendation should be targeted to VTrans as it would be more effectively implemented at a state level. The CCRPC would be a willing planning partner in such a venture.
54	MTP	Policy	Support policies to place a price on carbon to help incentivize low carbon alternatives. The plan should include a section on carbon pricing as a priority step to meeting shared goals.	Deb Sachs		The CCRPC's Energy subcommittee and Long Range Planning Committee discussed this and felt that it should be left to others to take the lead on such significant tax and policy issues.
55	MTP	Park and Ride	I disagree on the proposed location of the P&R lot on Route 7 in Charlotte. In my opinion (in the best of all worlds) it belongs at the Charlotte train station with TOD and mixed uses around the station.	Deb Sachs		The more pressing current need for a Charlotte P&R is nearer the US 7 corridor, where GMT service is currently offered, hence our focus there. The train station location is well off the main travel corridor and was rarely if ever used when it was open. That said, this is a reasonable place for such a future facility should commuter rail again become a regional priority.
56	Online Map	Utilities & Facilities	DHCD Staff Comment: The ECOS online mapviewer is accessible, dynamic, and offers comprehensive information on the built, social, economic, and natural environments. Existing utilities and facilities are identified on Maps 1 and 3, and future transportation improvements are identified on Map 4 of the plan. While many proposed improvements and projects are mapped in the plan, some are not. Future amendments and mapviewer updates offer opportunities to visualize infrastructure and facility projects proposed in, but not limited to: Strategy 2, Supplement 4, and Supplement 5.	DHCD Staff		Thank you for your comment. The mappable projects from the CEDS list are being added to the ECOS map viewer.
57	Online Map	Flood Resiliency	DHCD Staff Comment: The plan references Vermont’s Flood Ready website as well as the County’s All Hazard Mitigation Plan, which includes detailed maps identifying flood resilience resources. Further integration into the mapviewer could improve awareness and management of these resources in a one-stop planning resource (with second source disclaimers as appropriate).	DHCD Staff		Thank you for this comment. We've added the following three data layers from the AHMP to the ECOS online map: individual assistance claims, public assistance project locations, and geomorphically incompatible culvert.
58	Supplement 2	Energy	2030 District Folks in Burlington requested that the 2018 ECOS plan acknowledge the formation of Burlington’s District 2030 as a way to draw attention and give credibility to their efforts. See Email saved	Jenna Antonio Dimare	Burlington	Thanks for your comment. The 2030 District will be added to the CEDS list.
59	Supplement 2	Built Environment, Infrastructure & Facilities	I saw on Front Porch Forum that the ECOS plan is being updated. I have info for the paragraph regarding solid waste on page 63 in Built Environment of Supplement 2 and the Scorecard. Revised paragraph was sent on 2/14/18.	Nancy Plunkett	CSWD	Thank you for your edits. They've been incorporated as suggested.
60	Supplement 2	Built Environment	Second full paragraph: Add "investments in energy infrastructure" to the list of vital infrastructure.	Vermont Gas	N/A	Thank you for your comment. The edit has been made to include energy systems.

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61	Supplement 2	Energy	Energy Goal, as noted above, consider rephrasing from "Transform Chittenden County's energy system to a cleaner ... " to "Move Chittenden County's energy system toward a cleaner." This will allow room for cleaner fuels to replace dirtier fuels even if they are not yet renewable.	Vermont Gas	N/A	Thank you for your comment. The edit has been made.
62	Supplement 2	Energy	Consider rephrasing the sentence under energy goals as follows: "To meet state energy goals, the region is planning for a major shift away from fossil fuels in the transportation and heating sector to renewable electric sources of energy, energy efficiency in all sectors, and an increase in in-state renewable energy generators." This will allow flexibility for the inclusion of out-of-state renewable natural gas for uses other than electric generation.	Vermont Gas	N/A	Thank you for your comment. We made the change to the first strikeout but not the second and third.
63	Supplement 2	Energy	first bullet: Add renewable natural gas to the list of options to be promoted in achieving goal.	Vermont Gas	N/A	Thank you for your comment. We included a bullet to the section on transitioning to renewable energy which says" Vermont Gas Systems in currently working to deploy renewable natural gas in their service territory. The economic viability of renewable natural gas, its impacts on climate change, and its classification as a renewable resource will be monitored."
64	Supplement 2	Energy	Consider adding a new bullet stating: "Renewable natural gas will provide Chittenden County residents with an additional opportunity to increase the amount of renewable resources available."	Vermont Gas	N/A	Thank you for your comment. We did not make this change because the Plan currently supports biogas which is broad enough to include RNG and the Plan does not preclude renewable natural gas deployment.
65	Supplement 2	Energy	Might include the current numbers/specifics re NG heat vs. heat pumps in a separate sidebar, given these will change.	Sharon Murray	Bolton	Thanks for your comment. The last two sentences of the second bullet on this page were deleted.
66	Supplement 2	Natural Resources	Since approval of the first ECOS Plan in 2012, many Agency initiatives have come into effect or been updated to further support water quality improvements in Chittenden County. In addition to the Lake Champlain TMDL, these initiatives include but are not limited to: <ul style="list-style-type: none"> • Shoreland Protection Act and Permit; • Update of Lake Champlain Watershed Basin Plans - Lamoille and Northern Lake Champlain; • Flood Hazard Area and River Corridor Protection Rule and Permit; • Update of Stormwater Rules and Permits; and • Designation of Sandbar Wetlands as a Class I Wetland. CCRPC may want to update the Natural Systems Analysis Report to reflect these recent initiatives, as well as other trends and analyses identified below.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. We don't intend to update the Natural Systems Analysis Report at this time, but we've added these initiatives to the Ecological Systems section of Supplement 2.
67	Supplement 2	Ecological Systems	The most significant change is the pattern of the forest cover and relative connectedness of forest blocks to each other and riparian areas. Growth outside of planned areas has had a visible (and ecological) impact on the pattern of forests and forest cover. A key indicator which may provide a finer metric than land cover data to identify extent of forests is the Vermont Fish and Wildlife Department's Habitat Block dataset. This dataset is likely updated more regularly than the USGS Land Cover Data. Currently ANR is updating the dataset using LIDAR and looking to continue updates in the future.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. This additional information has been added to the Ecological Systems section. Also an action has been added to Strategy 4 to consider switching the data for this key indicator.
68	Supplement 2	Ecological Systems	The Natural Resources Analysis Report provides the bulk of goals, policies, and strategies which could address Act 171. An additional trend the Agency is seeing is forest blocks in Chittenden county are getting smaller and more isolated from other forest blocks, as well as surface water and riparian areas. Leaving islands of habitat within more dense development contributes to losses in biodiversity. These trends speak to the broader concept of the pattern of forest cover versus focusing on core forest areas.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. That trend was added to the Ecological systems section, and in Strategy 4.
69	Supplement 2	Ecological Systems	Reducing fragmentation of forest blocks and riparian areas will help limits the effects of climate change on species. As species adjust their ranges, they will need to cross roads and less suitable habitats. Maintaining a connected network of lands and waters is the one of the most important climate change adaptation strategies.	Billy Coster	Vermont Agency of Natural Resources	Thank you for your comment. This adaptation strategy was added to the Ecological systems section.

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70	Supplement 2	Solid Waste	We should track our waste stream and compost.	Andrea Morgante	CCRPC Board - Hinesburg Rep	Thank you for your comment. We do track this data and have included updated information from CSWD in the Utilities & Facilities section of Supplement 2. Also, the waste stream data is updated annually on the scorecard.
71	Supplement 3	Constraint description	Clarify this in the Plan: I received clarification from the State's Waste Management program about landfills. They indicated that landfills with post-closure regulatory documentation are the only ones that are qualified to be preferred sites.	Internal staff comment		Thanks you for your comment. Action 2.4.b.iii.has been revised to further define landfills with preferred site status.
72	Supplement 3	ECOS Plan Policies & Maps	Add the following to the end of the first full paragraph under ECOS Plans Policies and Maps. "For clarity, this Plan is not intended to require the Regional Planning Commission, or any individual municipality, to support or oppose any specific development proposal based on any particular goal or objective of this Plan."	Vermont Gas	N/A	Thank you for your comment. We did not make this change. We found that the Plan would not prevent distribution extensions from happening so long as these extensions are within the areas planned for growth and natural resources are avoided/mitigated. Because we don't believe the Plan will have a negative impact on distribution extensions, we decided that the statements on the intended use of the Plan were too broad and chose not to add them to the Plan.
73	Supplement 3	Regional Plan	Add Plans that are incorporated by reference to the list - ITS, Active Transportation, and AHMP.	Internal staff comment		These have been added to Supplement 3 - Regional Plan.
74	Supplement 6	Energy	On Figure X on page 23 (CCRPC 2050 MTP Scenario Energy Use Over Time, by Fuel), how did LEAP reach its assumptions about the reduction of Natural Gas usage over time, particularly between 2025 and 2050 – are they assuming that heat pumps become sufficient to heat as a primary fuel source for buildings, and that electricity costs come way down? The other fuel reductions / increases seem plausible but I'm concerned as to whether such a dramatic NG decrease is realistic. Forgive me if we already went over this issue during the meetings.	Will Dodge	Essex	Thank you for your comment. Yes you are correct the LEAP model is assuming the cold climate heat pumps will be the source of heating. Please keep in mind that this is just one scenario for achieving the 90X2050 scenario that is based on the state's assumptions in the Total Energy Study.
75	Supplement 6	Introduction	First paragraph. It may be helpful to strike "in-state" and "generators" before and after "renewable energy" in the last sentence. This will allow flexibility for the inclusion of out-ofstate renewable natural gas for uses other than electric generation.	Vermont Gas	N/A	Thank you for your comment we edited the first strikeout, but not the second.
76	Supplement 6	Introduction	Second paragraph. Consider adding the "While balancing other critical factors such as economic vitality and afford ability" to the end of the last sentence." This will help convey/remind that there are numerous factors to be considered.	Vermont Gas	N/A	Thank you for your comment. We agree with the concept of balancing other objectives while meeting energy goals. However, this concept is not applicable to the analysis section. This statement was added to Action 2.4.
77	Supplement 6	Introduction	Third paragraph. Consider adding to the following sentence to the end of the paragraph. "As noted above, in practice this will require balancing of several objectives and it is critical that flexibility in planning be maintained."	Vermont Gas	N/A	Thank you for your comment. We agree with the concept of balancing other objectives while meeting energy goals. However, this concept is not applicable to the analysis section. This statement was added to Action 2.4..
78	Supplement 6	Introduction	Please add "or renewable natural gas" to the list of various renewable energy technologies.	Vermont Gas	N/A	Thank you for your comment. We did not make this change because the Plan currently supports biogas which is broad enough to include RNG and the Plan does not preclude renewable natural gas deployment.
79	Supplement 6	Methodology for Renewable Energy Generation Targets	Please add "including renewable natural gas." to the last sentence.	Vermont Gas	N/A	Thank you for your comment. We did not make this change because the Plan currently supports biogas which is broad enough to include RNG and the Plan does not preclude renewable natural gas deployment.
80	Supplement 6	Supplement 6 tables	The Existing and Future Data Analysis section in Supplement 6 consists solely of data tables and maps. Written descriptions and analysis of the information presented in the tables and maps would be helpful.	Billy Coster	Vermont Agency of Natural Resources	Thanks for your comments on this section. We have added more written description and explanatory text throughout Supplement 6 to make it more reader-friendly.

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81	Supplement 6	Energy	<p>3rd paragraph—This page includes the disclaimer “These data targets are intended to be a demonstration of one possible scenario to reach 90% renewable by 2050 and are not intended to describe a future.” At a Selectboard meeting in Charlotte on 2/26/18 CCRPC director Charlie Baker confirmed this disclaimer, saying “...keep in mind this is not the plan of what should happen. We were tasked with the Legislature to try paint a scenario of how you could, not how you should, get to go 90%.”</p> <p>However, on some later pages of the ECOS Supplement 6, the targets are characterized as compulsory obligations (e.g., p. 33, “To determine how much renewable energy generation Chittenden County should plan to generate by 2050...”), and this compulsory language also appears on the two-page ECOS handout that was made available at the meeting in Charlotte (“90% OF ENERGY NEEDS TO BE FROM RENEWABLE SOURCES BY 2050”). From statements made by CCRPC (see for instance the first sentence in the handout) it is clear that CCRPC is using compliance with the ECOS energy plan as a crucial test for certification of town energy plans under Act 174. The disclaimer is therefore not in accordance with actual practice. CCRPC needs to clarify to what extent and why it regards the ECOS plan as a compulsory criterion for certification</p>	Hans Ohanian	Charlotte	<p>Thank you for your comment. According to the energy planning standards, a town plan is required to be adopted and approved to qualify for a determination of energy compliance by CCRPC. CCRPC's procedure for approving a town plan involves a review to determine if the town plan is compatible with the regional plan. The ECOS Plan is the Regional Plan for Chittenden County.</p>
82	Supplement 6	Energy	<p>4th paragraph—The LEAP model is described here as “one possible path for Chittenden County to meet the state energy goals.” This is misleading, in that the goal of 90% renewables is not (yet) a statutory state goal (it is merely a goal proposed by Gov. Shumlin—he of ill fame—in his CEP, but this goal was never enshrined in a State statute). And it is false, in that the LEAP model fails to achieve this goal for Essex, Essex JCT, and South Burlington, where there is insufficient space for solar panels, and insufficient wind power potential to meet the heavy energy requirements for the existing industries.</p>	Hans Ohanian	Charlotte	<p>Thank you for your comment. The LEAP model is not the mechanism by which CCRPC determined the renewable energy targets for municipalities. While our analysis of combining energy potential and constrained area, does indicate that Essex/Essex Jct and South Burlington cannot achieve the targets it is only under one particular scenario of solar. CCRPC in total can meet the targets with this scenario.</p>
83	Supplement 6	Energy	<p>5th paragraph—Biomass is here mentioned as a viable renewable energy source. But wood-biomass burning produces pollution and has a larger carbon footprint than oil burning. The 2020 update of the global treaty on climate now being drafted will close the loophole that permits wood-burning power plants to discount their carbon emissions and be regarded as renewable resources. The cavalier assertion of the Vermont legislature that the burning of wood biomass is regarded as renewable will then have to be rescinded. Furthermore, recent investigations of pollution connected with biofuel production (such as alcohol and biodiesel) have demonstrated that the ecological and social costs of this pollution far outweigh the (fairly small) benefits in carbon-footprint reduction. For consistency with the Paris accord, Vermont will have to reconsider its biomass and other biofuel use and shut down the McNeil and Ryegate power plants.</p>	Hans Ohanian	Charlotte	<p>Thank you for your comment. The Act 174 energy planning standards CCRPC is required to follow consider biomass heating as a strategy for reducing fossil fuels for heating.</p>
84	Supplement 6	Energy	<p>5th paragraph—The role of externally supplied renewable energy (such as hydroelectric power imported from Canada) is not made clear. This is needs to be explained. Imported generation is mentioned without any explanation in a table on p. 5.</p>	Hans Ohanian	Charlotte	<p>Thank you for your comment. This point has been made clearer on page 1 and again in the section which describes the targets.</p>
85	Supplement 6	Energy	<p>electric vehicles—The wild speculations about large increases in the number of electric vehicles ignore a serious problem associated with the shift from gas-powered vehicles to electric: What happens to the gas-powered cars when Vermonters trade them in for electric? They all go into the used-car market, and if all of the US adopts the same policy as VT, there will be a large surplus of hundreds of millions of gas-powered used cars, which will be exported to third-world countries, where people will enthusiastically welcome this windfall of cheap cars and will drive them to the max and thereby generate catastrophic amounts of CO2 (especially because they will probably continue to drive these cars for 20 or more years and not maintain them in a fuel-efficient condition). The net result of the introduction of electric cars in the US will then be a drastic increase of global green-house gases, not a decrease. What do you propose to do to prevent this disaster? Dump the cars into Lake Champlain?</p>	Hans Ohanian	Charlotte	<p>Thank you for your comment. Planning for what happens to gasoline powered vehicles is beyond the scope of the ECOS Plan.</p>

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86	Supplement 6	Energy	Table—"Biofuel Blended Energy" is a confusing misnomer. This is Fossil Fuel with small amount of Biofuel additive. Maybe call it Fossil/Biofuel Blend?	Hans Ohanian	Charlotte	Thank you for your comment. A change has been made to clarify what is meant by biofuel blended energy.
87	Supplement 6	Energy	In the Tables you should make a distinction between ground-source and air-source heat pumps	Hans Ohanian	Charlotte	Thank you for your comment. This change has been made.
88	Supplement 6	Energy	3rd Table—"Low Target" and "High Target" should be explained or a reference to the later discussion on pp. 33, 34 should be given	Hans Ohanian	Charlotte	Thank you for your comment. This change has been made.
89	Supplement 6	Energy	statements about the "amount of wind."—It seems this is calculated from available area and a wildly exaggerated guess about how much power wind turbines can produce in the Champlain Valley, with its notoriously low wind strength.	Hans Ohanian	Charlotte	Thank you for your comment. We are using the best available data we have for determining wind speed potential.
90	Supplement 6	Energy	last Table—A reference should be given for the source of these numbers.	Hans Ohanian	Charlotte	Thank you for your comment. The change has been made.
91	Supplement 6	Energy	solar acreage—Do these numbers take into account that much of this acreage might be pre-empted by biofuel cultivation?	Hans Ohanian	Charlotte	Thank you for your comment. The solar acreage does not take into account that the land area could be used for biofuel cultivation.
92	Supplement 6	Energy	Does this map take into account that in, for instance, Charlotte large areas are under control of the Charlotte Land Conservation Trust, or are in a conserved wildlife area, or conserved forest area?	Hans Ohanian	Charlotte	Thank you for your comment. A statement has been added to the biomass map to indicate that the woody biomass resource areas do not account for state/local known constraints.
93	Supplement 6	Energy	To call the LEAP tool a "robust framework" is a joke. LEAP does not include any financial analysis (such as present-value calculations), and in the absence of such analysis it is impossible to say whether any investors would be interested in developing renewables generation or how much in incentives the State would have to contribute to motivate investors. LEAP isn't robust—it's flimsy speculation.	Hans Ohanian	Charlotte	Thank you for your comment. LEAP is the best tool we have available for understanding what 90X2050 means for the region.
94	Supplement 6	Energy	diesel and biodiesel—Many European cities have moved or are moving toward prohibition of diesel-powered cars, because of serious pollution problems. In the long run, diesel and biodiesel will probably have to be excluded entirely, except perhaps for heavy-duty vehicles on farms	Hans Ohanian	Charlotte	Thank you for your comment. The State's energy planning standards include planning for the use of bio-diesel in the heavy duty sector and we are working within this framework.
95	Supplement 6	Energy	rail transport—Despite the failure of Gov. Dean's attempt at promoting light-rail transport in Vermont, this will probably become an important component in our transportation system, especially because it can be implemented with electrically operated trains. This is an issue that obviously needs to be included in any plan that pretends to cover the next 30 years. Likewise, electric trolley buses merit serious discussion.	Hans Ohanian	Charlotte	Thank you for your comment. Both passenger rail and commuter rail is discussed in the MTP Supplement 5.
96	Supplement 6	Energy	Figure X—Biodiesel, Ethanol, wood chips, and wood pellets are all afflicted by serious pollution and/or carbon-footprint problems and should probably be dismissed completely (see my comments for p. 1, 5th paragraph and p. 14) The same criticism applies to the biofuel and biodiesel entries on pp. 25 and 26.	Hans Ohanian	Charlotte	Thank you for your comment. The State's energy planning standards include planning for the use of bio-diesel in the heavy duty sector and using wood heat to decrease fossil fuels. We are working within this framework.
97	Supplement 6	Energy	transportation fuel switching and increase of EVs—The ESSEX plan recently proposed by some members of the Legislature (among them Mike Yantachka) would presumably have an impact on this change in our vehicle fleet, and therefore the ESSEX plan ought to be discussed discussion in this context.	Hans Ohanian	Charlotte	Thank you for your comment. For better or worse, the ECOS Plan is rather silent on pricing proposals, as this is very much out of our hands and beyond the scope of this Plan (at least for now).
98	Supplement 6	Energy	wind energy potential—Your arbitrary adoption of a capacity factor of 0.35 for wind turbines in the Champlain Valley is absurd. This is the capacity factor for a large wind turbine operating in an exceptionally good location. Although I seem to remember that GMP proposed this number in its PSB application for its Lowell wind farm, a knowledgeable engineer of my acquaintance told me the actual capacity factor is more like that of Searsburgh, about 0.24. The capacity factor for a large turbine in the Champlain Valley would probably be only 0.15 or so, and the capacity factor for a smallish turbine (Bergey 10) would be around 0.07.	Hans Ohanian	Charlotte	Thank you for your comment. The capacity factor of .35 is included in guidance by the Department of Public Service.

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99	Supplement 6	Energy	rooftops for solar PV—Your estimate of 25% for suitable rooftops is probably too large, because people like to have a tree or two near their house, for summer shade. This makes many roofs totally unsuitable.	Hans Ohanian	Charlotte	Thank you for your comment.
100	Supplement 6	Energy	<p>formulas for calculation of solar targets for county and for municipalities—The formulas you propose, by averaging population and area percentages or population and electric-consumption percentages for county and municipalities, respectively, are mathematically nonsensical. The appendix attached at the end of my comments explains this in detail (sorry it’s such a long explanation, but because your staff is totally confused on this point, I felt it was necessary to give a complete math lesson).</p> <p>Furthermore, from a legal perspective, your formulas are probably forbidden by Act 174. The problem is that Act 174 explicitly demands that the municipal plans must have the same “energy elements” as the regional plan and must be consistent with the planning goals of the regional plan. But in your proposal, the renewables allocations for the regional and municipal plans are calculated from different formulas, so the energy elements and quantitative goals of these plans are not in agreement—the regional plan and the municipal plans do not march in unison. You had better consult with your legal counsel to find some way around this roadblock or maybe alter the formulas for regional and municipal goals, so the formulas are the same.</p>	Hans Ohanian	Charlotte	Thank you for your comment. The DPS has reviewed our formula for establishing municipal and regional targets and has not indicated any issue to date.
101	Supplement 6	Energy	The Chittenden region could achieve the regional goal with wind energy if cows could fly. To evaluate the production of renewable energy it is not sufficient to check that there is enough area, it is also necessary to examine whether the costs of the required renewable equipment are acceptable. For wind energy in the Champlain Valley, costs for wind energy are prohibitive. The most serious deficiency of the ECOS plan is that it is infected by an Alice-in-Wonderland attitude and never considers the costs of anything. Vermont has no good solar resources (except for the foggy Northwest corner of Washington State, Vermont has the worst solar resources in the US) and only mediocre wind resources (strong winds are found only on mountain ridges, which are difficult to access and make installation and maintenance of wind turbines extremely expensive). GMP builds solar and wind farms not because the resources are good, but because these projects are excellent tax shelters and because the PUC guarantees to GMP a 9% return on assets, which makes it profitable to install such assets even if the cost of energy production is extravagantly high—and, of course, the Vermont ratepayers ultimately have to pay for it all. With further increases in Vermont renewables, we will soon see rates as high as \$30/ kW-h and more, similar to the rates that now prevail in Germany.	Hans Ohanian	Charlotte	Thank you for your comment.
102	Supplement 6	Energy	other sources of renewable energy—Another obvious deficiency of the ECOS plan is its failure to examine a drastic increase of importation of clean and cheap renewable hydroelectric energy from Canada. HydroQuebec is the largest hydroelectric resource in the continent. We should consider ourselves lucky to live near it, and we should offer to buy as much hydroelectric energy from HQ as they are willing to sell.	Hans Ohanian	Charlotte	Thank you for your comment. We have clarified that 50% of renewable energy is anticipated to be from imported sources.
103	Supplement 6	Energy	local constraints—I found, to my surprise, that your lists and map of local constraints list no known constraints at all for Charlotte, only conceivable constraints. The protected wildlife areas, ecological areas, forest areas, and “forever-conserved” areas in Charlotte would seem to fall into the category of areas with known constraints. Clearly somebody in one of the several town committees in Charlotte or in your organization is guilty of gross negligence. I suggest you investigate.	Hans Ohanian	Charlotte	Thank you for your comment. According to the CCRPC methodology for determining local constraints from town plans and zoning regulations, Charlotte's ecological areas are not 100% prohibitions for development. CCRPC worked extensively with town staff to identify the type of constraints that would be included in the ECOS Plan. See the constraints and suitability methodology explanation in supplement 6.
104	Various	Forest Integrity	Need for necessary compliance language for Act 171 forestry/habitat blocks and connectivity planning	Marty Illick		Thank you for your comment. We've made a number of edits to the Ecological Systems section of Supplement 2, and Strategy 4 in the main document for Forest Integrity purposes based on ANR's comments, and we added the map as well.

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105	Whole Plan		VT Agency of Natural Resources provided a full memo of comments on CCRPC's top actions, watershed management, forests, habitats & working lands, and energy. Below are only the comments that include suggested edits.	Billy Coster	Vermont Agency of Natural Resources	N/A - see below
106	Whole Plan	Energy - VT Gas	A full page of comments were submitted; this is just a subset: "The ECOS Plan states that Chittenden County will continue efforts to avoid development in particularly vulnerable areas, and Vermont Gas has been been careless in these areas, as evidenced by their pending investigation in the Clay Plains Swamp in New Haven. Not only that, but emphasis on fossil fuels like natural gas, which the industry has tried to brand as “sustainable,” has not no place in Vermont’s energy future in the first place; especially with our ambitious plans to reduce emissions." "We should keep in mind that VGS has a monopoly on natural gas in the state, so the don’t make money on the actual fuel, and in turn they have to keep building infrastructure to make money, and at a rate that is too fast to bother with cost overruns or permit compliance." "Allowing a company who seeks dividends over the safety of their customers to work on the planning and future of the state would be a mistake. They’ll try to lull us into a false sense of security with press releases about staying safe in winter, or planting a few hundred trees in summer. A few hundred trees are a moot point when this pipeline, which threatens to leak or explode, continues to pump methane into our air. The newest scientific research tells us that methane is more potent of a greenhouse gas than previously thought—and is comparable with CO2." "As we move into the future, with or without VGS, please consider the public stakeholders which VGS often gives less than 24 hours notice to come to public hearings like the recent one in Bristol. They are not interested in engaging with stakeholders like myself. I’m not here to vilify the people working at Vermont Gas, the rank-and-file just doing their jobs, but I don’t want their clever PR team to pull the wool over our eyes when it comes to our future as a county and as a state."	Julie Macuga		Thank you for taking the time to come to the public hearing and providing comments. The Plan works towards the State's energy goals, while acknowledging our current reliance on natural gas in significant portions of our region. The Plan states "Shifting from that non-renewable fuel will require complex changes at all government levels, businesses, utilities and individual consumers." We will implement the Plan, within our ability, to be moving off of fossil fuels. It is also important to note that weatherization is also a critical goal of the State and the Plan and VT Gas is a partner in that effort.
107	Whole Plan	Energy	This is a summary of input provided at the 4/21 public hearing - Concerned about renewable natural gas and indicated it’s an oxymoron.	Rob Fish	CCRPC Board - Alternate Rep. Burlington	Thank for your comments during the hearing. The term “renewable natural gas” was not added to the Plan except for this sentence in Supplement 2: "Vermont Gas Systems is current working to deploy renewable natural gas in their service territory. The economic viability of renewable natural gas, its impacts on climate change, and its classification as a “renewable” resource should be analyzed in future updates to this plan."

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108	Whole Plan	Transportation & Housing	This is a summary of input provided at the 4/21 public hearing - There currently exists a lack of collaboration to connect deadends for bike and ped. Examples include Patchen Road between So. Burlington & Burlington and Tech Park between So. Burlington & Williston. There is a need for more "family housing."	Chris Shaw	CCRPC Board - So. Burlington Rep	Thank for your comments during the hearing. Regarding the housing comment we agree there is a need for housing at a variety of price points and will continue working on the housing issues in the next few years. Regarding the bike/ped gaps, the regional Active Transportation Plan (ATP) identifies both areas as gaps in the regional network system and in fact identifies both as regional priorities. The Williston/ South Burlington gap along Kimball Ave has long been recognized as a regional priority and has been scoped by the CCRPC. The next step is for the two communities to seek VTrans bike/ped funding to design/construct. Sidewalks are considered a local responsibility and the hope is that through development projects and municipal or grant funding, the Patchen Road and other system gaps will be addressed. However, for a project to move towards implementation it needs to be a priority for the municipality since they will be using municipal funding to either construct or match. The Active Transportation Plan also recommends to VTrans that ATP projects that support regional connectivity, such as the two you cite, be considered more favorably in the Bicycle-Pedestrian grant process. CCRPC staff would also be happy to work with any municipal groups seeking to advance these regional projects.
109	Whole Plan	Energy	This is a summary of input provided at the 4/21 public hearing - The energy section includes a discussion on the heat pumps v. natural gas conversion and we may be missing the bigger point here; and the discussion isn't forward thinking enough. Three phase power line on maps is sometimes solid and sometimes dotted. Should be consistent.	Andrea Morgante	CCRPC Board - Hinesburg Rep	Thanks for you comments! The lines on the map will be changed from dotted to solid. To address your comments on heat pumps, staff proposes including the following language: "Because of current low natural gas prices, customers are not likely to save money by replacing existing natural gas heating systems with cold climate heat pumps. However, this may change as fuel prices fluctuate. Installing cold climate heat pumps as the primary fuel source in new buildings will help the region meet its goal of shifting the heating sector away from fossil fuels."
110	Whole Plan	Forest Integrity	This is a summary of input provided at the 4/21 public hearing -Act 171 is mentioned, but this should be strengthened. Perhaps add something like: Over the coming years the RPC will work to be compliant with Act 171 and will help municipalities do the same. We should own this more. Chittenden County has some of the most diverse forest resources and biodiversity in the state.	Andrea Morgante	CCRPC Board - Hinesburg Rep	Thank you for your comment. Staff made a number of edits for Forest Integrity purposes based on ANR's comments, and we added the map as well.
111	Whole Plan & MTP	Main St. Corridor and affordable housing	We talked about the ECOS Plan at our Leadership Team meeting last week and at our Council meeting on Tuesday night. We have some high-level general thoughts to share. We really appreciate the 2-page summary sheets presented. They were clear, concise, and interesting to review. Generally, we want to emphasize the importance of the Main Street Revitalization project and increasing access to affordable housing across the Chittenden County communities.	Jessie Baker	Winooski	Thank you for your comments. We agree with the importance of both of these things and believe they are well reflected in the Plan and our actions; we also changed the Main St. Revitalization project to short-medium timeframe.