

Name	Comments Received/Page No.	Text	Questions / Comments	Responses
Jesse Shields	Via Email		I really like the report and noticed that on page 8-16 Status of EV Charging Infrastructure in Madison. It does a good job of promoting EV charging and the current efforts in the Madison area. I would like to submit an edit to the description of MGE's efforts to promote EV charging through our program and services: "MGE owns 30 public charging stations in the Madison area, including 27 Level 2 chargers and three DC fast chargers – eight of these stations are located in the City of Madison parking facilities. MGE will install another DC fast charger at Home Depot in November 2018, and three additional Level 2 chargers by the end of the year. MGE also offer a Charge@Home program that currently has 50 participants with approval to enroll up to 100 customers. The Charge@Home and public charging programs allows MGE to study charging behavior and how to best manage the impact of EV charging on our distribution system. MGE also partner with businesses and developers to install charging stations for employees and apartment residents."	
Jeannette LeZaks	Via Email		Attached are my comments on the document. Overall, it looks really good. I made comments throughout on suggested changes. The most substantive comment I have is a suggested rework of the overall outline of the document – it's unclear why all the details about the scenarios are buried in an appendix. To me, appendices are where you put things that don't necessarily add to the discussion of the report but rather provide supplementary information. Yet, there is so much relevant detail in the appendices that merit being placed front and center in the main body of the report. I have this written in one of my comments, but here is my suggested rework of the outline. I think it will make it a stronger report, but obviously feel free to take it or leave it. 1. Madison Current Successes a. Constraints to further sustainability (currently appendix A2) 2. Scenarios a. Summary of scenarios (currently the four pages at the start of section 2) b. Detail of scenarios... (currently appendix c) c. Technical detail of scenarios... (currently appendix b) (could also be renamed "Definitions of strategies") d. Suggested actions to accelerate... (currently appendix d) Appendix A: Baseline emissions Appendix B: Stakeholder engagement (currently appendix E) Appendix C: Additional Information (currently Appendix F)	
Jeannette LeZaks	iv	Opening Letter	Great opening letter to provide context to this document.	
Jeannette LeZaks	v	MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED"	Not a big deal, but seems odd that only this phrase is all caps.	
Jeannette LeZaks	vi	These five cities now generate 100% of the energy used communitywide from renewable sources.	Modify this reference to link to the specific webpage of Sierra Club that mentions the 5 cities. I went to the link referenced and was unable (in the minute that I spent) to find clearly which communities these are.	
Jeannette LeZaks	1	has limited options	Really? This seems somewhat loaded statement, and without description. What are the challenges? What are the limitations? Is it that we don't have a municipal utility? Whatever limitations or challenges you think there are, it would be good to acknowledge them here.	
Jeannette LeZaks	3	Energy usage tracking.	What does this entail? What is it tracking? (I know what this likely entails, but the reader may not). Provide more details, like: How many buildings? All buildings? On a monthly/ yearly basis? Is it public information?	
Jeannette LeZaks	7	2. Scenarios to Achieve 100% Renewable Energy and Zero Net Carbon	This 4 page section should have a separate heading that says: Summary of Scenarios...." It really is a high level overview. The Appendix with details on each scenario should be pulled out of the appendices section and put right below this 4page summary. This is the meat of the report and the foundation for the decision makers – it should be front and center. Here's a suggested updated outline: 1. Madison Current Successes a. Constraints to further sustainability (currently appendix A2) 2. Scenarios a. Summary of scenarios b. Detail of scenarios (currently appendix c) c. Technical detail of scenarios (currently appendix b) d. Suggested actions to accelerate (currently appendix d) Appendix A: Baseline emissions Appendix B: Stakeholder engagement (currently appendix E) Appendix C: Additional information (currently Appendix F)	
Jeannette LeZaks	8	Table 1. 100% Renewable Energy and Zero Net Carbon Timeline Menu	Good scenarios, but to me, they are just stepping stones from one to the next. That's implicit in the fact that you write Scen 2 includes all Scen 1 measures, and so forth. It's not necessarily a bad thing, but it's hard to call them distinct scenarios. Rather they are just steps to getting closer to net zero without external RECs/offsets. Not sure there's anything to do about it now. Maybe it's just semantics.	
Jeannette LeZaks	8	Table 2. Scenario Key Financial Estimates - Simple Payback	To avoid having all of our readers do mental math on this, can you change this to years from present day? Rather than the year we reach payback?	
Jeannette LeZaks	9 Edits / Additions	Scenario 1: 100% Renewable Energy and Zero Net Carbon by 2020 The Scenario 1 objective is to quickly reach the goal of 100% Renewable Energy and Net Zero Carbon for city operations. By 2020, city government will cut its carbon emissions by 15% with at least 10% of municipal operations' electricity use sourced by self-generated renewable energy. The city will expand its current efficiency investments in facilities and implement green fleet and pilot programs to gain early momentum. Investments in solar include installing at least 1 MW of Behind-the-Meter Phase 1 solar projects. City officials will continue to work with local utilities to encourage development of larger solar arrays investing in RECs and/or carbon offsets that meet the City's standards for additionality make up the remaining 85% of the carbon balance.	Suggested edits to remove near duplicate sentences and paragraph	
Jeannette LeZaks	9, 10	the city should add additional solar, energy storage and electric vehicle charging capacity to accommodate these vehicles and to further plan for electric vehicle charging infrastructure for the community.	Why wasn't this modeled? This is the kind of "scenario" I was hoping to see. Again, not sure we can do much about this at this point, but perhaps it merits a note here on why this was not modeled.	
Jeannette LeZaks	10 Edits / Additions	The energy ecosystem is changing rapidly. Renewable energy, energy storage and electric vehicle markets are undergoing rapid technological innovation and price declines. A balanced approach of investments in energy efficiency, transportation strategies, and renewable energy installations, along with RECs and carbon offsets, is key to reaching the 100% renewable energy and zero net carbon goal quickly and cost-effectively.		
Jeannette LeZaks	B-5	Local Spotlight: Sauk County Solar Cash Flow Positive from Day 1	It seems odd that these spotlights are in the appendix.	
Jeannette LeZaks	C-1	APPENDIX C. SCENARIOS TO REACH 100% RENEWABLE ENERGY "a subsequent"	The previous?	
Jeannette LeZaks	C-3	Figure C.1. Results 2020 Scenario	These impact graphics should be in the main section of the report. The blue column seems superfluous to me. This table is meant to show (per its title) the measures implemented by 2023. The blue column adds no additional meaning and really only seems useful if you were to combine this table with the other scenarios.	
Jeannette LeZaks	C-7	Table C.2. 100% Renewable Energy and Zero Net Carbon by 2023 Investments in buildings are \$2.5 million. Water distribution optimization is \$1.5 million. Streetlights are \$5.5 million. Solar phase 1 is completed by 2023 and costs \$5 million	Does this really need to be listed out in text? Seems more appropriate for a table. Hard to read and compare as is.	
Jeannette LeZaks	C-12	Table C.4. Scenario 3: 100% Renewable Energy and Zero Net Carbon by 2030	See my earlier comment	
Jeannette LeZaks	D-1	D.1 Suggested Actions for City of Madison Operations	Can you speak to how to prioritize these efforts? The way it's written, it's hard to know which to tackle first or which may have the most effect in terms of RE/ZNCE. There is a lot of effort involved in the suggested actions and having a way to prioritize would be tremendously useful.	
Jeannette LeZaks	D-2	• New Construction: Provide incentives for developers and contractors to build solar-ready and EV-ready for 5-10 years, as appropriate; after which, these programs are phased into mandates for residential and commercial new construction and major retrofit projects, incorporating solar-ready and EV-ready attributes into all projects.	At this point, I doubt there is time/budget left to make these prioritizations, but it would have been nice to see some effort to help guide city officials on best next steps to take (beyond the big ones detailed above). ☹	
Sam Dunaiski	Via Email		First we need stronger building codes. Incentives for stretch building codes should be a priority on par with solar-ready.	
Sam Dunaiski	Via Email		I'd certainly like to echo my co-members on the SMC regarding the latest IPCC update. There is very little time to keep warming to 1.5C, and there is a big difference between 2C and 1.5C with an excellent summary here from Carbon Brief. I would also like to point out that methane and other feedback methods are taken into account in the latest IPCC update. Would also like to mention that there is little detail in the scenarios about where any possible REC projects would be located. Given the amount of pushback we had on the One Energy proposal, I would assume anything less than Wisconsin-based projects would have a hard time passing. I'm concerned that this might make the 2020 Scenario -and possibly even 2023- all but irrelevant. ☹	
Jessica LeClair	Via Email		Thank you for the opportunity to review this draft report. My comments are centered around health and racial equity. I am concerned that the Racial Equity and Social Justice Initiative Comprehensive Tool as not been applied to this plan. There seems to have been little, if any, engagement with historically marginalized communities/populations in the development of recommended action steps. This is concerning, as we must harness the lived experiences of low-income communities, communities of color, and other marginalized people to reverse the burdens they are experiencing on the frontlines of climate change, and to design a sustainable alternative energy system. I would like to see a plan that stresses equity and the need to redress historical harm in finding solutions that achieve social justice. It is not too late for the SMC to raise up the leadership of historically marginalized communities, especially centering people of color, in envisioning and shaping an energy system that can meet the needs of all people.	
Jessica LeClair	iv - Edits / Additions	Other social dynamics have changed along with our climate. Income inequality has skyrocketed. Wealth gaps along race and gender lines are striking. And it is apparent that the impacts of a warming world disproportionately burden women, people of color, low-income communities, and other historically marginalized populations.	Better to refer to folks most affected as burdened, rather than victims – they are actually resilient leaders. Also, we know there are many more folks affected, such as immigrants, ESL, LGBTQ+, homeless, incarcerated, etc	
Jessica LeClair	5 - Edits / Additions	These are consistent with the US Mid-Century Strategy for Deep Decarbonization strategy for meeting the Paris Climate Agreement.	https://www.ipcc.ch/news-and-events/pr_181008_P48_spm.shtml	

Jessica LeClair	7- Edits / Additions	Consultants developed forecasts of Madison's demand and supply of energy between 2018 and 2050. These forecasts show that local government operations can achieve its goals by 2020-2030 through a combination of investing in efficient buildings and facilities, the water distribution system, city street lights and traffic lights, renewable energy, efficient electric fleet and transit vehicles and Renewable Energy Credit (REC) purchases. Further aggressive decarbonization planning would be required for local government to operate without the use of RECs or carbon offsets.		
Jessica LeClair	B-11	The need to provide clean, decarbonized, and efficient transportation plays an important role in solving many of the most serious challenges facing the greater Madison area including public health, air quality, noise pollution, and the City of Madison's Racial Equity and Social Justice (RESJ) goals	When discussing Transportation, the #1 most effective strategy to improve public health and health equity is to increase opportunities for Active Transportation. We are missing an analysis of strategies to reduce energy consumption by increasing active transportation through planning and policy. This is 100% under the purview of the City. Policy statement from the AHA: https://www.heart.org/-/media/files/about-us/policy-research/prevention-nutrition/active-transportation-ucm_495249.pdf?la=en&hash=44367E101810852FC6C90391872E390F7220C697 APHA: https://www.apha.org/topics-and-issues/transportation/active-transportation	
Jessica LeClair	B-11	Most of these involve decreasing the amount of transportation fuel in use by fleet vehicles, but a second approach entails switching to fuels that emit fewer GHG emissions (i.e., replacing a vehicle that uses gasoline with one that runs on lower emissions, such as compressed natural gas (CNG) or propane).	What about a 3 rd approach: decreasing vehicles on the road by increasing access to public and active transportation options?	
Jessica LeClair	B-16	• MGE has an EV charging station map on its website and offers programs to customers to charge at home and at the workplace.	Does this include access to EV charging in lower income neighborhoods? Apartment buildings, etc?	
Jessica LeClair	D-2 Edits / Additions	• Electric vehicle zoning and permitting: The City of Madison should implement an EV and EV charging station zoning and permitting policy. Identifying areas of the city with appropriate grid requirements or needs where EVs and vehicle-grid initiatives could support strategic zoning, appropriate investments, and Racial Equity and Social Justice Initiative goals. City permitting requirements should be transparent and clear. Some cities include incentives and/or requirements for EV charging stations in new developments or major retrofit projects and in projects that receive city subsidies or financing, such as TIP.		
Jessica LeClair	D-4	Action: Install policies and/or funding preferences for CDA and the Affordable Housing Trust Fund that all new single-family homes built with CDA funds should be certified as Net Zero Ready, and all affordable housing using city funds should be built as renewable-ready and EV-ready.	Nice! What about also retrofitting existing properties that are using CDA funds?	
Jessica LeClair	D-7, D-8 Edits / Additions	Action: To accommodate the rapidly increasing demand for EVs in Madison and the surrounding area, the City should immediately develop a comprehensive plan for the implementation of EVs and EV charging infrastructure. The City should use its Madison in Motion plan (2017) and work with the Madison Area Transportation Board, MGE, Alliant, and other organizations to develop appropriate plans for future distribution and procurement of public EV charging stations through 2030. Whenever possible, public EV charging stations should be accompanied by solar PV installations (and energy storage if beneficial) to ensure that EVs are charged with renewable energy and to provide educational and outreach opportunities for the public. Utility tariffs and rate structures must also be created to address the needs of EVs and EV charging infrastructure, while also meeting Racial Equity and Social Justice Initiative goals. An initial target for public EV charging stations could include 100 new public EV charging stations by 2023 and 250 new public EV charging stations by 2030. The target should be revised as needed based on market research and customer surveys. The City of Madison EV implementation plan should include the marketing of current EV charging stations to include an interactive map of current EV charging stations via a public website		
Jessica LeClair	D-8 Edits / Additions	Action: Continue to work with other local governments and electric utilities to develop and promote community solar options, while also meeting the goals of the Racial Equity and Social Justice Initiative. Set appropriate targets, aim to develop 5 MW of community solar by 2020, 20 MW by 2023 and 30 MW by 2030.		
Jessica LeClair	D-9	The City of Madison has negligible control fossil generation.	This doesn't make sense.	
Jessica LeClair	D-9	the retirement older generation resources	??	
Jessica LeClair	D-9 Edits / Additions	D.2.5 Incentivize Affordable Clean Energy in the Community More efficient, affordable, green, and net zero energy projects are developed in Madison and across Wisconsin each year. However, Madison needs more of these projects implemented more quickly with strategies that meet the goals of the Racial Equity and Social Justice Initiative. ☺		
Jessica LeClair	D-9 Edits / Additions	Action: Madison can create a policy framework that creates healthy and thriving communities, called "green zones" or "energy investment districts." Green zones provide a framework for equitable energy policies by infusing impacted communities with the financial and technical assistance needed for development of local renewable energy resources. There are five aspects to the green zone/TID model: 1. Identifying overburdened and impacted communities. 2. Prioritizing identified communities for public investment. 3. Advancing on-the-ground models. 4. Providing resources and assistance to impacted communities. 5. Establishing community governance and democratic decision-making processes.	Source: Fairchild, D., Weinrub, A. (2017) Energy Democracy: Advancing Equity in Clean Energy Solutions. Island Press. P. 59-60	
Jessica LeClair	D-11 Edits / Additions	Action: Continue and expand funding for MadISUN and consider funding additional community engagement initiatives that align with the goals of the Racial Equity and Social Justice Initiative, such as collaborating with established community-based organization that have a history of working with historically marginalized communities. Face-to-face outreach and culturally appropriate and multilingual marketing are best for environmental justice communities. crowd-sourcing ideas, competitions. Increase collaboration with the Focus on Energy program. Begin a dialogue with the Madison Metropolitan School District about energy efficiency and renewable energy at area schools. Expand work with community-based organizations who work with or represent people burdened by health and racial inequities, neighborhood associations and the faith community to provide education, outreach, and technical assistance about the benefits of clean energy for Madison	Source: Fairchild, D., Weinrub, A. (2017) Energy Democracy: Advancing Equity in Clean Energy Solutions. Island Press. P. 62.	
Jessica LeClair	E-1	such as City of Madison departmental staff and the SMC	Have RESJ members been engaged?	
Jessica LeClair	E-1	external stakeholders	Have organizations representing historically marginalized people been engaged?	
Jessica LeClair	E-1	public input meetings	In low-income communities? Including historically marginalized groups?	
Jessica LeClair	E-1	public interest survey	Outreach to people with little to no internet access? Multiple languages?	
Jessica LeClair	E-2	other local stakeholders	Historically marginalized groups???	
Jessica LeClair	E-2	Almost 100 people attended the meeting	What were the demographics of this group?	
Jessica LeClair	E-3	Figure 1.2. City of Madison 100 Percent Renewable Energy and Zero Net Carbon Public Meeting September 27, 2017	White, middle-to-upper class, English-speaking?	
Raj Shukla	Cover Letter - Edits / Additions	Madison is the first city in Wisconsin set our sights so high. We aim to be the first to meet the challenge. But understand, this work is about more than "the environment". Clean energy is about people, the community we can be, and the city we deserve. The fossil fuels we use every day cause climate change. 2018 will be the fourth hottest year in recorded history. The only years hotter were 2017, 2016, and 2015. That string of records is part of a rapid climb in temperatures since the start of the industrial age. And the warning signs for what could come are all around us. Fires rage. Floods rise. Wildlife disappears. Food and water grows scarce for too many each day. At the same time, income inequality has skyrocketed. Disparities along race and gender lines persist. And women, people of color, and low-income communities stand to lose the most as the planet warms. Scientists are very clear that our health and safety depend on rapid changes to the way we live and work. Our community is just as clear that Madison must show the way toward a green future. We can't afford to wait to confront the threat of climate change. Renewable energy technology has advanced at breakneck speed and costs continue to plummet. Our city will save money if we power our lives with the sun and wind. We will also honor our commitment to social and environmental justice. This report is the first step. Enclosed are options to set Madison on course to 100% renewable, zero net carbon energy. We present three timelines and recommended actions to meet each. The first scenario envisions success by 2020 and relies heavily on investing outside the city. The	Looks like Excel submitted for a green tariff on 10/11 as well...which you probably already are aware of. Seems a bit odd that they take resources that would otherwise have been rate based, and have people voluntarily pay extra for that resource. That's not exactly additivity. Also odd that Renewable connect can meet 100% of a customer's load, but then you have MGE and WE Energies using the hourly rule.	
Michael Vickerman	Via Email			

			<p>After our conversation last night, it occurred to me that many people will read the HGA/Navigator report and evaluate it through the lens of the recently released IPCC study on limiting increases to 1.5°C (see excerpts below). That report is generating a substantial amount of public discussion on climate change, and it seems to be amping up public perception that more drastic action is necessary. Its interim goal, which for us translates to a 45% reduction in human-caused CO2 emissions by 2030 citywide, would be an incredibly stiff challenge for any city in the United States, let alone in Wisconsin, with a state government that pretends that climate change is someone else's problem.</p> <p>As it relates to the current draft report, I strongly recommend working in some reference to the IPCC report, perhaps in a sidebar, and expand on it with some discussion acknowledging the need for serious and sweeping changes to happen rather quickly. I understand that this will result in more work for you, but I believe there is a real danger that the report will be regarded as "weak tea" if it is issued without any reference to, and discussion of, the IPCC study's conclusions.</p> <p>https://www.ipcc.ch/news_and_events/pr_181008_P48_spm.shtml</p> <p>The report finds that limiting global warming to 1.5°C would require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050. This means that any remaining emissions would need to be balanced by removing CO2 from the air.</p> <p>"Limiting warming to 1.5°C is possible within the laws of chemistry and physics but doing so would require unprecedented changes," said Jim Skee, Co-Chair of IPCC Working Group III.</p>	<p>We'll plan to update the report to include information from the latest IPCC report and further reflect the sense of urgency needed to implement the City's 100% RE plan.</p>
Michael Vickerman	Via Email			
Heather Allen	Via Email		<p>I would echo Michael's statement. The IPCC Special Report changes the conditions under which the City of Madison must implement this plan. The actions are increasingly important and urgent and the City should be sure to make this clear throughout the document.</p> <p>Practically speaking a forward or an introduction focused on the news of IPCC might be very useful. And if we wanted to go even deeper we could reflect on the WICCI models for a wetter and warmer Wisconsin with more intense storms. We have seen how those predictions played out with major flooding in August of this year. ☹️</p>	
Richard Heinemann	Via Document		<p>☹️ Overall organization: Consider reorganizing report so that the appendices are focused on providing supporting data. Right now the "Report" is comprised of background and a menu of options (the scenarios) that are not really comprehensible without the info contained in the appendices. The narrative in the report should educate the reader so that the actions contained in the "Scenarios" are more readily understood. The appendices should be limited to the more quantitative or granular data and graphs.</p>	<p>o SEG response: Appendix have been reorganized in a more logical manner. I (MB) would not be opposed to renaming the appendix as the body, and having sections 1 and 2 be called the executive summary. We can review again in further discussion with larger SMC. -MB</p>
Richard Heinemann	Via Document		<p>Appendix A: Baseline Data (currently A-1) ☹️ A.2 (Constraints) should be in the body of the report, as a new Section 2</p>	<p>SEG Response: We are trying to keep the section 1 and 2 as short as possible. Let's review further with team after we have the graphic designed section 1 and 2. -MB</p>
Richard Heinemann	Via Document		<p>☹️ B.1, B.2, B.3 should also be in body of report, because they establish the basis for understanding the Scenarios.</p>	<p>SEG Response: See comments above. -MB</p>
Richard Heinemann	Via Document		<p>☹️ C.1 and C.2 can probably be included in body as relevant detail: C.3 (policy review) seems like it should go in what is now Appendix E (additional actions to accelerate). The References sections should be included in what is now Appendix G (additional info)</p>	<p>SEG Response: See comments above. -MB</p>
Richard Heinemann	Via Document		<p>Appendix B: Scenarios (currently Appendix D): much of the narrative information is already, or should be, in body of report. The info in this appendix should be limited to the more granular information related to cost, low carbon calculator and marginal abatement cost analysis.</p>	<p>☹️ SEG Response: See comments above. -MB</p>
Richard Heinemann	Via Document		<p>o Appendix C: Suggested Actions (currently Appendix E). Not sure why this is a separate Appendix, and not part of the body</p>	<p>SEG Response: Generally I agree what is referred to as appendix really should be part of the body of the report, with section 1 and 2 being the "executive summary". -MB</p>
Richard Heinemann	Via Document		<p>Appendix D (currently F, Project Approach) This is ok to establish how the background behind the report and how public engagement was accomplished, but lets relabel it accordingly (Public Engagement, or something like that)</p>	<p>☹️ Response: Updated</p>
Richard Heinemann	Via Document		<p>o Appendix E (currently G, Additional Info)</p>	
Richard Heinemann	Via Document		<p>Scenarios: STRONGLY consider focusing the narrative in the main report around the 2030 scenario, maybe even as a recommendation, and reference that if the City wants to accelerate the timetable, it can do so by investing more in RECs in other areas of the State. This is going to be the key point of contention when the report is reviewed by the Committee and ultimately council: achieving the overall goal will require the City to (i) partner with Alliant and MGE to build more renewable resources for the City (and residents) to utilize and (ii) buy RECs as offsets. The City will have to make a policy choice if it wants to accelerate the timeline: more dollars toward RECs will quicken the pace, but lessen the investment in direct actions that reduce the City's carbon emissions, including in the development of new renewable resources that can be utilized by the City and its residents. By focusing on the 2030 scenario, and then including the other two as scenarios for accelerating the pace, the policy choice becomes clearer (as opposed to including all three as a menu of options).</p> <p>Exec Summary: Third paragraph uses word "options" when rest of report uses "scenarios" Per bullet point above, I think this third paragraph should make it clear that the City only has a few levers to achieve its goal (Direct action around energy efficiency and renewable investment, and offsets) and the timeline is a function of how the city chooses to invest in these.</p>	<p>SEG Response: I don't disagree, but we thought the this was a policy decision to be made by SMC and the alders, not by the consultants. Let's revisit this discussions with larger SMC. -MB</p> <p>SEG Response: See comments above. I edited options to scenarios in the referenced paragraph. -MB</p>
Richard Heinemann	Via Document		<p>o Section I ☹️ P. 1: Reduce "carbon emissions" (1st bullet) 1.1.1: "Solar targets" should be "renewable targets"; then make it clear that the emphasis on solar is due to unfeasibility of other renewable resources (wind, etc)</p>	<p>SEG Response: Revised. Also added footnote that clarifies "Carbon", "carbon emissions" and "carbon dioxide emissions". -MB</p> <p>o SEG Response: Edited as indicated. -MB ☹️</p>
Richard Heinemann	Via Document		<p>P. 2: Reference to OV REC project is inaccurate. Use MV's comments. Report should include info (maybe it's already there) on how much of the City's OV purchase is included in the Scenarios. In other words, is that already part of the baseline, such that all the REC purchases reflected in the scenarios are incremental investments?</p>	<p>SEG Response: REC deal language has been updated. -MB</p> <p>o NAV: OV RECs are not part of the baseline. OV RECs would satisfy a big part of the REC requirements for each scenario. -JA</p>
Richard Heinemann	Via Document		<p>o Section 2 (see comments above—I think this section must be rewritten to clarify the policy choice)</p>	<p>SEG Response: I don't disagree, but we thought the this was a policy decision to be made by SMC and the alders, not by the consultants. Let's revisit this discussions with larger SMC. -MB</p>
Richard Heinemann	Via Document		<p>o A.2.1 JH is correct - net metering section should be clarified: the point is that current rules limit the amount of onsite solar customers (like COM) can install because two over customer load are compensated at the wholesale rate. Hence, solar is economic to the extent customer can offset consumption otherwise paid for at higher retail rate.</p>	<p>☹️ SEG Response: Language in this section has been revised. -MB</p>
Richard Heinemann	Via Document		<p>Similarly, re municipalization, WI law grants incumbent utilities indeterminate permits so COM cannot leverage franchise renewal for energy policy preferences; in Boulder's case, residents were willing to fund efforts by paying a sizable surcharge on electric bills. Here, COM has opted to collaborate with MGE.</p>	<p>☹️ NAV: Thank you, we updated this comment. -JA</p>
Richard Heinemann	Via Document		<p>B.1.5 Can't these retrofits investments be ordered in terms of some cost-benefit priority? Reconfiguring Capital Heat and Power plant (Page B-5, 2nd to last par.) seems way too costly to be included as an "option".</p>	<p>SEG Response: In Appendix D Scenario section, the measures have been prioritized by cost /carbon benefit. The plant reconfiguration was not included in any of the scenario's. -MB</p>
Richard Heinemann	Via Document		<p>B.2 Intro to this section has to do a better job of distinguishing between what City can do BTM, and what it can do in partnership with MGE, either through REC or siting a community solar project. Not sure why wind is foregrounded when later it becomes clear it is unfeasible. Same with other resource options</p>	<p>☹️ SEG Response: The B subsections break down renewable generation by behind the meter, offsite solar, off site wind, greener grid and REC's. At this point, wind is a bit inaccessible to the City outside of REC's, but that could change over time, which is why we still include it. We are open to any language revisions for the intro. -MB</p>
Richard Heinemann	Via Document		<p>B.2.1 The discussion about alternative financing should be clearer: City can selffinance by taking advantage of low cost of borrowing as a unit of local government. But State Constitution imposes a debt limit and debt financing is costly, so partnering with other entities is essential. Many local governments enter into co-ownership arrangements with entities (which can include the incumbent utility) so that they can take advantage of PTCs unavailable to City as a unit of local government. I don't think id include Monona that list (they used a different model not replicated by other municipalities). Key point here, however, is that the City does own a significant portion of the system upfront, using grant money, or other financing sources. This point is unclear in draft at present ("The developer largely covers the initial cost of the system in this arrangement"). I would absolutely eliminate the discussion about RFPs and state policy. No need to open that can of worms.</p>	<p>SEG Response: This section has been revised. There are lots of ways for the city to finance solar. SMC and alders need to decide what is the best choice for the City. I included footnote reference to the UW extension Solar Finance Guide that goes into detail on all the different options. -MB</p>

Richard Heinemann	Via Document		B.2.4 The point of this section should be emphasize that City has an opportunity to partner with both these utilities to build more renewable resources- utility scale, as well as behind the meter (through RER, in MGE's case)	B.2.4 The point of this section should be emphasize that City has an opportunity to partner with both these utilities to build more renewable resources- utility scale, as well as behind the meter (through RER, in MGE's case)
Richard Heinemann	Via Document		B.2.5 This RER discussion needs to be much clearer- explain what a REC is (it's a means of accounting for the renewable attributes associated with a unit of electric generation, not an "investment associated with production of electricity") and emphasize that it's a method to increase investment in local renewable resources by providing enhanced revenue streams to developers or offtakers. As stated earlier, there should be a discussion of how CDM's investment in the DV RECs is factored in to the scenario analysis.	B.2.5 This RER discussion needs to be much clearer- explain what a REC is (it's a means of accounting for the renewable attributes associated with a unit of electric generation, not an "investment associated with production of electricity") and emphasize that it's a method to increase investment in local renewable resources by providing enhanced revenue streams to developers or offtakers. As stated earlier, there should be a discussion of how CDM's investment in the DV RECs is factored in to the scenario analysis.
Richard Heinemann	Via Document		B.2.5 This RER discussion needs to be much clearer- explain what a REC is (it's a means of accounting for the renewable attr	The table has different terminology for the pilot implementation efforts, also missing electric buses and landfill CNG.
Stacie Reece	Via Document		Agree with RH about the reorganization. As I read the more detail descriptions in the Appendix, I could almost see an anchor / hyperlink needed in the beginning to bounce back and forth.	SEG response: Appendix have been reorganized in a more logical manner. I (MB) would not be opposed to renaming the appendix as the body, and having sections 1 and 2 be called the executive summary. We can review again in further discussion with larger SMC. -MB
Stacie Reece	Via Document		TOC "Demand-Side" vs. "Supply Side" hyphen or not, pick one and find/replace throughout for consistency	o SEG response: Updated all to eliminate the hyphen. -MB
Stacie Reece	Via Document		TOF: Figure A-2 and Figure A-3 have *** that I am unable to find- Ahh, when creating TOCs it grabs the same title as later in the report (pg. A-3) – is there a way to fix this?	o SEG Response: I modified the formatting of the *** so that it should no longer show up in the TOC. -MB
Stacie Reece	Via Document		-TOF: Figure D-10 has a double space after hyphen	SEG Response: This appears to be correct now. Someone must have fixed this already. -MB
Stacie Reece	Via Document		-TOT: Fix Table D-7 to look like Table D-4	-TOT: Fix Table D-7 to look like Table D-4
Stacie Reece	Via Document		Opening letter: This is for RA, 2nd para, change "poor people" to "low-income communities"?	o SEG Response: Changed as indicated. -MB
Stacie Reece	Via Document		- Executive Summary: 1st para, Along JER comments, upon first reading wasn't clear the difference between the 25 cities in NA and the 70 entities in the US	Updated -JA
Stacie Reece	Via Document		Executive Summary: 3rd para, Side Note: in referencing any sort of health benefits, those could be calculated through EPA's AVERT/COBRA tools	SEG Response: Noted. Nchange made ttext. -MB
Stacie Reece	Via Document		1.1.3 Transportation, 4th bullet: Madison Mobility Plan, is this Madison In Motion? MM is referenced later in report (pg. C-3). Checking for consistency.	Updated -JA
Stacie Reece	Via Document		1.1.3 Transportation, 2nd bullet: "MGE" but see later on the same page 1.2 2nd para "Madison Gas & Electric (MGE)"	o SEG Response: Changed to MGE. Added Madison Gas and Electric to the first "MGE" in the report for clarity. -MB
Stacie Reece	Via Document		- Page 5 3rd bullet, change to "Dane County Council on Climate Change"	o SEG response: Updated as indicated. -MB
Stacie Reece	Via Document		- Page 8, Table 1 – Do we want to have a table that includes a side-by-side comparison of Cost, \$ Savings, Payback Years? Also agree with comments that the Table 1 / Figure 1 could be combined or organized in a way to better compliment	o SEG response: Added summary table for the economic numbers. Combined data in table 1 and figure 1. -MB
Stacie Reece	Via Document		- Page 9, Figure 1, per JA comment, if color changes occur, note they are repeated in subsequent graphics / tables and will also need changing. Also agree with KW comment on not using "REC Heavy" as to a layman, not sure if that is a positive or negative or what it means to the overall picture	SEG response: Eliminated the REC heavy terminology. Deleted that graphic with the arrows. -MB
Stacie Reece	Via Document		- Figure B-1, can we use this branding through the rest of the report?	SEG Response: Let's see what the graphic designer comes up with. We can discuss with him some additional ideas for the "look" of the report. -MB
Stacie Reece	Via Document		B.1.1 – "COM" Spell out	o SEG Response: Updated. -MB
Stacie Reece	Via Document		- Page B-10, 2nd para, 'behind the meter' vs section title "Behind-the-Meter"	o SEG Response: Went to hyphens throughout. -MB
Stacie Reece	Via Document		- Page B-10, JA Comment, somewhere it should reference 'cross-subsidy' as that is the language PSC / MGE uses when limiting the MW that a muni can use on a RER project (so as to not cause cross-subsidies from ratepayers to muni)	o SEG Response: Added that language on B-8. -MB
Stacie Reece	Via Document		- Page B-3, no need to "Focus on Energy (FOE)" and "FOE" in same para as it is spelled out throughout rest of report	o SEG Response: Edited throughout. -MB
Stacie Reece	Via Document		- B.3.2 Title is not in italics	o SEG Response: Revised with italics. -MB
Stacie Reece	Via Document		- E.1.11 – Possibly include something about resilience here?	o Updated -JA
Stacie Reece	Via Document		- E.1.15 – Change to "Dane County Council on Climate Change" also add the Municipal Working Group under the DCA	o SEG Response: Changed the Dane language. Not clear what DCA is. Please clarify. -MB
Stacie Reece	Via Document		- F.3.4 – Include Madison Energy Cloud Graphic?	Updated, thank you ☺ -JA
Stacie Reece	Via Document		Page G-6, Is Madison College "REC" for Renewable Energy Certificate? If so, spell out	SEG Response: Revised as noted. -MB