

Applied Solutions' holds periodic online collaborative webinars to leverage the expertise of local government staff to support the design, development and implementation of energy, water and transportation public projects. Each webinar is captured in a case study format and shared with all Applied Solutions members at [www.appliedsolutions.org](http://www.appliedsolutions.org).

## Applied Solutions Case Study- Larimer County, CO Regional Energy Master Plan Consortium, December 19<sup>th</sup> 2012

*"The Applied Solution Group has created a valuable resource and rich venue with the Applied Solution Technical Advisory Council (ASTAC) and Facilitated Peer Exchange Webinars, respectively. These two collaboration tools give visionaries, leaders, planners, innovators, and implementers an opportunity to vet their ideas through engaging the best and brightest people in the field of clean energy and sustainability. Sometimes, we develop ideas, initiatives, and innovation without the input of those that have navigated similar territory or that have a different perspective. The Applied Solution Group has provided us with scouts and engagement that will help prepare us for a successful journey. Too often, we have been too engaged in the details of our conquest that we cannot see the trees because of the forest. Now, we have a means to engage with those that can aid us to remember the view of the forest while we are still in the midst of it. Collaboration is the GPS of innovation!"*

*-Michael Kirk, Larimer County, CO*

*Michael Kirk: Director of Facilities Services for Larimer County, CO*

*John Hume: Montachusett Regional Planning Commission's Planning Development Director, MA*

*Elisabeth Russell: Special Projects Manager of Association of Monterey Bay Area Governments, CA*

### Discussion Questions:

1. What was the catalyst or set of circumstances that led to the creation of the regional effort?
2. How were the plans funded? Did funding include grants from private sources or foundations?
3. What were the key objectives of the plan? What were you hoping to accomplish?
4. How were the various stakeholder groups organized and engaged? Did you have representation from environmental groups, economic development agencies, energy companies, and local government?
5. What role did academia play in the creation of the plan?
6. Was baseline data readily available or was this part of the tasks in developing or implementing the plan?
7. What were the key challenges and how were they overcome?
8. What were the key success or innovations that you would like to highlight and how did they impact the success of the planning effort?
9. What were the key "lessons learned" that you would recommend or can be transferred to other regions?
10. Now that plans have been developed, what are the key challenges relating to implementation?

### Responses

1. What was the catalyst or set of circumstances that led to the creation of the regional effort?

#### **Elisabeth:**

- Working with AMBAG Board of Directors- composed of elected officials from the 18 cities and 3 counties.

- Brought forward the idea of seeking funding from the California Energy Commission to initiate a Regional Energy Plan and had 100% support from all of our cities and counties.
- Went forward with requesting the funding from the California Energy Commission- which we received.
- Received more funding from the California Energy Commission in 2008 to do an update.
- The catalyst in the state of California was AB32 being issued around climate change and the relationship to GHGs to energy.

**John:**

- After a devastating ice storm we had second supplemental appropriation disaster relief grant funds became available to the Montachusett region through the federal government- we had to apply for these funds. We put together a grant application for \$125,000 and submitted it to the federal department of commerce economic development administration to look at the electrical grid system in the region and at other energy related things. We received the grant.
- The technical and public process resulted in an alignment of stakeholders who wanted to continue planning after this project was finished not just for energy mitigation but for alternative energy options which could result in economic development in the region.
- Wanted to keep the momentum going that we had established, with lots of support from our stakeholders.
- Sought additional funding to put together another EDA grant application and we received that award for the regional energy plan for the Montachusett region by working cooperatively with the private and public sector, educational institutions-students and faculty, state and local officials, the department of energy resources, and a variety of energy experts.

2. How were the plans funded? Did funding include grants from private sources or foundations?

**John:**

- Contacted the federal government, the economic development administration department of commerce to see if a regional energy plan might be a fundable project, I was told that it was, and we put together a grant application, and we were awarded a 1-year financial assistance award of \$66,000 from the EDA for the Montachusett region to put together the plan.
- EDA requires funds are matched 1-to-1, so we had to come up with \$66,000 of our own funds.
- MRPC did provide some matching funds about \$5-\$10 thousand.
- Used time spent by faculty and students who worked on this project as matching funds as was the time spent on by the energy advisory committee members.
- Had a series of workshops so presenters who presented for free for part of the scope of the work we could use that to leverage part of EDA funds too.

**Elisabeth:**

- First phase we did from 2006-2008 and the revised edition of the regional energy plan was funded by the California Energy Commission and what we have been doing since then in 2009-2012 has been funded by the California Public Utilities Commission (CPUC).
- CPUC has a California long-term energy efficiency strategic plan. So, they have provided funding in our state for organizations, local governments to do exercises in putting together energy action strategies.

3. What were the key objectives of the plan? What were you hoping to accomplish?

**Elisabeth:**

- Did a regional energy plan in 2006 and 2008 and we have been doing the specific energy action plan for each of our individual 21 jurisdictions in which the key objectives are different.
- The key objective was the process of opening the discussion to identify all of the stakeholders, bring all the stakeholders together and engage them in conversation to get direction.
- Actual documents are more visionary documents, they set the vision, they set broad draft targets, and that was the output of that effort.
- After we were able to move into the more specific work and in the current energy action plan we are completing now for all of our 21 jurisdictions, we are looking at specific measures that each one of them can adopt on a community wide basis and running the actual data for them so they can evaluate the costs of the measure, the energy savings per measure, the payback for adopting the measure.

**John:**

- The basic goal of the regional energy plan is to promote the reduction of electricity, energy use for transportation, and non electric energy use for heating, replacement of fossil fuels with renewable sources, and reduce global climate change emissions.
- A key objective through all of this is to promote economic development in the region too. We view alternative energy sources as a way to ultimately enhance the economy by hopefully creating cheaper, more sustainable energy sources while creating jobs for people too.
- The progression of energy related projects that we worked on, results in products and successes which continue to evolve as a direct result of this regional energy project.

4. How were the various stakeholder groups organized and engaged? Did you have representation from environmental groups, economic development agencies, energy companies, and local government?

**John:**

- Through the Montachusett region energy advisory committee that formed prior to this grant award-to remain intact indefinitely, we still meet even after the conclusion of the regional energy plan that we completed last year.
- Energy advisory played a role in attaining grant funds from EDA.

- Montachusett region's committee is comprised of representatives of both private and public sectors including among others national grid, Unitil, planning board members and planning board staffs, municipal planning staff, municipal light plants, and general managers who all attend these meeting regularly.
- Included hospitals and municipal management directors, and environmental groups which are important because we look at hydro power and water but we wanted to include the river watershed association.
- Energy advisory committee met a number of times to provide oversight of the grant activities and during meetings they had significant contributions of accomplishments ranging from the interview of a consultant that we hired, to ensure quality product, reviewing and providing input on inventory of renewable energies facilities throughout the region, and commenting on the final draft report at the end of the project before it was presented to the general public.
- Public participation included a widely publicized press conference at the very beginning of the project as soon as we were aware we receive federal funding.
- 6 regional workshops such as on wind energy, hydro power, and solar, we had educational materials and exhibits, and we had a widely publicized wrap-up event at the conclusion of the projects
- Advertise these events as widely as possible, receive a lot of media attention.
- It is good to get these types of projects in the newspapers.
- MRPC staff also presented updates to our planning commissioners and guests on a monthly basis.

**Elisabeth:**

- Developed an energy advisory committee which met monthly.
- Two main industries in our region are agriculture and the hospitality industry- so we had reps from the agriculture and hospitality industries.
- Because we wanted to serve the residential market we had the government relations officers from the realtors from the 3 counties, we had: non-profits, energy companies, municipal staff, public works staff, planning staff, energy companies, universities, and special districts.
- After we had completed the regional energy plan we continued to meet, but now more on a quarterly basis or an as needed basis.

**5. What role did academia play in the creation of the plan?**

**John:**

- Faculty and students from Worcester Polytechnic Institute in Worcester, Massachusetts played a role in acquiring the funding for this project.
- WPI provided MRPC with documentation that students and faculty were available to work on this project.
- Funding agency (EDA) encourages the involvement of Colleges and Universities and MRPC recognizes the value in this too.
- MRPC Staff worked with Worcester Polytechnic Institute and Sterling Planning Board Member, to form a team of four students.

- Student in-kind services were used to develop a System Dynamics computer simulation Regional Energy Model to forecast the energy demands for the Montachusett Region under different simulations and scenarios.
- MRPC Staff was in regular contact with the lead Professor and the student team to assist and provide direction.
- WPI Students presented initial work to the Energy Advisory Committee to obtain input and guidance.
- Students' final product was presented mid-way through the project. As part of the presentation, model runs were used for a number of situations such as increases in oil price, electrical demand, and green production of energy.
- Consultant Jennifer Andersen further refined the model during the remainder of the project and was presented by her at the Wrap-Up Celebration at the conclusion of the study.

**Elisabeth:** Academia supported the AMBAG region by partnering with us to provide graduate level interns that completed the GHG inventories for the municipal jurisdictions in the region.

6. Was baseline data readily available or was this part of the tasks in developing or implementing the plan?

**John:**

- Both.
- Baseline data available through various state departments in the Commonwealth of Massachusetts was very useful to study participants.
- Presenters at workshops pointed us in the direction of existing baseline data.
- Data available through past reports that MRPC and communities had worked on and actual interviews with local planners and local officials.
- MRPC obtained locations for renewable energy by reaching out to the Building Departments in each of the 22 communities in the Montachusett Region.
- Letters mailed out to the municipal building staff that asked if they were aware of any solar panels, wind energy systems (large or small), geothermal, landfill gas, hydro or biomass systems in their community since a home, commercial or industrial building would need a building permit to install many of these systems.
- Inventory consists of wind energy, solar photovoltaic energy, geothermal, landfill gas, hydro, and Biomass.
- Information was used in-part to support educational events that highlight and showcase existing renewable energy projects to educate the public.
- Information has been and will continue to be used for enhanced materials development like fact sheets, and websites to help capture municipal decision-makers interest in committing to a portion of our region's renewable energy project.

**Elisabeth:**

- Needed to develop the entire baseline data related to municipal and community-wide GHG inventories and their updates.

7. What were the key challenges and how were they overcome?

**Elisabeth:**

- Trying to develop the individual community energy action plans for each of our 21 jurisdictions while working with the jurisdictional staff.
- Difficult to get the data that we needed to be able to run it in the modeling tool, which can calculate the different measures energy reduction measures.
- Challenging to get the data to transform it into a useable match to work with the tool.
- Many jurisdictions just don't have their particular data available.

**John:**

- Community participation- getting people to participate in the workshops on a regular basis.
- To overcome this challenge with the regional energy plan we: hired a consultant to assist our staff to put together eye catching flyers and meeting notices and to come up with speakers that are really good public address so people would attend.
- Workshop location. One of our communities was doing something with solar, so we had a workshop there on solar. One of the educational institutions were putting up windmills so we had 2 workshops there. The consultant that we hired started putting in phone calls to key people and newspapers as workshop date got closer.

8. What were the key success or innovations that you would like to highlight and how did they impact the success of the planning effort?

**John:**

- Getting this project funded.
- Education that was provided to local and state officials, businesses, and residents on energy related issues was instrumental including all the energy advisory committee meetings, workshops, press conferences, etc.
- Tried to generate education materials people could take back home with them along with a widely distributed set of recommendations in the final report which impacts/enhances the success of the planning effort.
- Diverse Regional Energy Advisory Committee continues to play an active role in energy matters.
- Our latest grant award from EDA for the siting of renewable energy facilities that MRPC recently received, this committee played a big role to acquire these grant awards and it was even a recommendation in the final Regional Energy Plan that we seek such funding to carry out a study on the siting of renewable energy facilities.
- Getting everyone to work together on a common goal has worked to provide a more unified relationship between businesses, municipalities, and Colleges/Universities.

**Elisabeth:**

- To do this work together as a region, which means lower costs and similar methodology among all the jurisdictions in the region.

9. What were the key “lessons learned” that you would recommend or can be transferred to other regions?

**Elisabeth:**

- Use the same methodology for each individual jurisdiction so that it all matched.
- We used tools for calculating GHGs, and then we used tools for working on our energy action plan.
- Because of the methodology that we are doing the same thing for each individual jurisdiction that we can put into a final report that AMBAG generates that explains what is happening collectively throughout the region.
- Key lesson we have learned is you have to recognize and support the diversity in each different jurisdictions timelines, budgets, management processes, and visions for their jurisdiction.
- It is a way to work with all 21 jurisdictions where each one is participating but they are developing the plan that is unique for their jurisdiction.
- Recognize and support diversity.

**John:**

- Hiring of consultants to do specialty things- such as for the study and for community outreach to get people to attend public events.
- Get as many people as you can to participate in your study especially when it comes down to getting the plan implemented.
- The more involvement from people during the initial study gets people to buy into the project.
- Get key people from each community involved- getting these people’s ideas down on paper makes it more likely that they are going to read the final product and implement it in their community.

10. Now that plans have been developed, what are the key challenges relating to implementation?

**John:**

- Keeping things together after the plan is finished and the funds from EDA are depleted.
- Energy advisory committee that was formed needs to keep meeting and discussing challenges to promote energy efficiency and renewables.
- After the project was completed we don’t have the funds to staff it anymore from EDA, we take the lead on recruiting special guest speakers, drafting the agenda, and organizing and scheduling meetings.
- Find other opportunities and funding sources.
- Keep that open dialogue and working relationship with colleges.
- Finding funds to carry out some of the recommendations that staff needs to carry out in part because of the expertise and time involved.

**Elisabeth:**

- Moving forward we will be working with the jurisdictions and the community wide stakeholders to advance the plan and build the stakeholders support for the strategy so we can take the next step of adopting the strategy and implanting the energy action plan and policies.

- It is our goal to be working with our jurisdictions because we need the support of our local utility company to do energy efficiency work in our region.
- Then tracking and reporting outcomes.

## Audience Questions

Q: How will the Regional Energy Plan be organized in terms of coordinating with the two counties and various cities? Will the plan have overall goals and policies as well as individual ones catered to the local jurisdictions? What would happen if one or two cities decided not to adopt the plan?

**A: Michael:**

- Engage all of the stakeholders and the appropriate people to have the dialogue and to have enough diversity and flexibility in the plan that we recognize that each jurisdiction's situation is not the same.
- Having the flexibility of a plan that moves us in the same direction but allows people to implement the things that fit their particular jurisdiction.

Q: Did you set quantitative carbon and energy targets at the sector level, and if so, how?

**A: Elisabeth:**

- On each individual jurisdiction, with their planning offices to get an idea of where they want to see those targets set.
- In the state of California there are already existing GHG reduction targets that if a jurisdiction had not yet made a commitment to their target for the purposes of working on the draft we would adopt the California State targets overall.
- When you look at the jurisdiction the success and being able to reach those targets varies extremely from one jurisdiction to another where they want to focus.

**A: John:**

- We do have state goals and objectives in Massachusetts; our regional planning agency tries to do what we can to reach those goals and objectives.

Q: Buy-in from key sectors is critical: do you have buy-in from local county commissioners and city council members, key state agencies, and the general public?

**A: John:**

- Buy-in is critical, that is why we wanted to get the word out that we got the federal funding.
- Wanted to reach out to the cities in our region, to the city councils
- Wanted buy in from the municipal right department, environmental groups are important
- Wanted the department of energy resources to participate.

**A: Elisabeth:**

- We identified all the key sectors in our community that we needed to have at the table.
- Got 100% endorsement from key leaders from each of those sectors.
- Be sensitive to each sector's needs and limitations.



- There are going to be certain amounts of give and take and you have to be comfortable with doing.
- With representation, bring their issues to the governor's office of planning and research and opening the dialogue for our representatives.
- We are not only working for a regional solution but for a state solution that works for all the stakeholders.

Q: How was social media used to engage stakeholders?

**A: John:**

- We held a press conference as soon as we knew we had our federal funding set in stone and we could move forward.
- We invited cable TV and all the newspapers.
- As we went along with energy advisory committee meetings we invited the press and the local media- to the workshops too.
- It was helpful that we hired a consultant too to help us get greater attendance.

**A: Elisabeth:**

- Doing the Regional Energy Plan from 2006-2008 we did not use social media.
- The use of social media would be something that happens in the next phase working with the draft and taking it to the stakeholders and the communities.
- Working with each individual jurisdiction we provide them with the data and work with them but we are not necessarily taking the lead in how they do their public participation process.

Q: Are the terms and concepts used in working with the general public simple and easily understood? Have professional terms and jargon crept into public and planning information?

**A: Elisabeth:**

- Our public participation would be our regional advisory committee and because it is such a diverse committee that covers many different market segments we make sure that we work hard to keep the language in a useable format for everybody.

**A: John:**

- We try not to take for granted that all the people understand the language that goes on before the state agencies and local officials because we try to get the general public to participate through the study as much as possible.
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Q: Are the objectives and planning steps clear and not excessive in number and time frame in order to keep participants involved?

**Elisabeth:**

- We try to break the steps down into workable pieces; complete that piece across the whole region, and then start on the next step.

**John:**

- MRPC developed a scope of work for this project that outlined how this study would proceed.

- It was straightforward and encouraged participant involvement and the project was completed on schedule.

Q: How active was the private sector in your planning efforts?

**Elisabeth:**

- The private sector participates in advisory meetings
- At this point most of the work is at the draft stages and is in working committees or with staff.

**John:**

- Private sector participated on the Energy Advisory Committee-made up of a mix of the public and private sector and was responsible for providing input and direction throughout the course of the study.
- The Advisory Committee is comprised of, among others, National Grid, Unital, Planning Board Members, municipal planning staff, municipal light plants, Heywood Hospital, municipal emergency management directors, and environmental groups i.e. Nashua River Watershed Association.
- The private sector also participated in workshops that were organized as part of this project.

Q: Are the documents the presenters developed including the “draft” from Elisabeth available for download?

**John:**

- Yes, MRPC’s Regional Energy Plan is available on-line at [www.mrpc.org](http://www.mrpc.org).

**Elisabeth:**

- We will have the “draft”/ template ready for sharing at the beginning of February, after it has finished review and commentary by stakeholders.

Q: Elisabeth mentioned energy measurement software the closest I could get was ICOO. Please ask Elisabeth to identify the software and where it can be purchased.

**Elisabeth:**

- In calculating the GHG effects of various mitigation measures and also in calculating the GHG inventories, AMBAG used the software developed by ICLEI.
- The CPUC has funded development of this software to be used by jurisdictions (at no cost to the jurisdiction) under the SEEC funded effort.
- You can contact Amruta Sudhalkar at ICLEI ([amruta.sudhalkar@iclei.org](mailto:amruta.sudhalkar@iclei.org)), for more information or just research on the ICLEI site looking up the SEEC program.