

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
BUILDING CODES COMMITTEE

March 17, 2010

Maricopa Association of Governments Office  
Cholla Room  
Phoenix, Arizona

COMMITTEE MEMBERS

\*Steven Hether, Mesa, Chair  
Ken Sowers, Avondale, Acting Chair  
Phil Marcotte, Buckeye  
\*Mike Tibbett, Carefree  
Mike Baxley, Cave Creek  
A- Alex Banachowski, Chandler  
Mary Dickson, El Mirage  
\*Peter Johnson, Fountain Hills  
\*John Smith, Gila Bend  
\*Jo Rene DeVeau, Gila River Indian  
Community  
A-Ray Patten, Gilbert  
Tom Paradise for Bryan Woodcox, Glendale

Bill King for Ed Kulik, Goodyear  
\*Chuck Ransom, Litchfield Park  
Tom Ewers, Maricopa County  
Russ Louman for Bob Lee, Paradise Valley  
A- Dennis Chase for Dennis Marks, Peoria  
Rob Runge for Tom Wandrie, Phoenix  
A-Dean Wise, Queen Creek  
Michael Clack, Scottsdale  
A-Michael Williams, Tempe  
Mario Rochin, Tolleson  
John Stigsell, Youngtown  
Rick DeStefano, Wickenburg  
Rus Brock, Home Builders Association

OTHERS IN ATTENDANCE

Heidi Bickart, MAG  
Jami Garrison, MAG  
Patty Camacho, MAG  
Denise McClafferty, MAG  
Bridget Jones, HBACA  
Marc Sobelman, eTec  
Mark Hubbard, eTec  
Alana Chavez, ECotality  
Jim Fox, SAFEbuilt  
Ken Kirschmann, Southwest Gas  
Dustin Schroff, City of Scottsdale

\*Those members neither present nor  
represented by proxy.

**A**-Those members participating via  
audioconference

**V**-Those members participating via  
videoconference

1. Call to Order

Ken Sowers, Acting Chair, called to order the March 17, 2010 meeting of the MAG Building Codes Committee (BCC) at 2:00 p.m.

2. Introductions

Voting members Dean Wise, Michael Williams, Ray Patten, Dennis Chase, and Alex Banachowski attended via telephone conference call. All members introduced themselves.

3. January 20, 2010 Meeting Minutes

Tom Paradise asked if it is plenum rated not platinum rated. It was moved by Tom Ewers, seconded by Phil Marcotte and unanimously recommended to approve the January 20, 2010 meeting minutes as amended.

4. Call to the Audience

Jim Fox, Operations Manager for Arizona Operation, with SAFEbuilt provided information on services from SAFEbuilt. SAFEbuilt, a Colorado-based inspection agency, is located in 9 different states and currently expanding operations. The company offers plan review services, inspection services, combination of these, any services for special projects (e.g. some communities have expressed interest in using SAFEbuilt as their building inspection service). The company only provides building department services, including fire review and structural review. SAFEbuilt employs 5 Master Code Professionals and 19 Certified Building Officials throughout the company. Jim Fox distributed business cards.

There were no other comments from the audience.

5. Comments From the Committee

Rus Brock introduced Bridget Jones from Home Builders Association of Central Arizona (HBACA). She serves as Deputy Director at HBACA to work with the cities. Ken Sowers welcomed her.

Rick DeStefano asked if any jurisdictions have fencing requirements for ground mounted PV systems. No jurisdictions responded as having this requirement.

6. Electric Vehicle Charging Infrastructure Deployment Guidelines

Ken Sowers introduced Marc Sobelman from eTec. Marc introduced Mark Hubbard also from eTec and Alana Chavez from ECOTality.

On August 5, 2009, Electric Transportation Engineering Corporation (eTec), a subsidiary of ECOTality, Inc., a leader in clean electric transportation and storage technologies, was selected by the U.S. Department of Energy for a grant of approximately \$99.8 million to implement the largest deployment of electric vehicles and charging infrastructure in history. The eTec initiative proposes to deploy charging infrastructure in major population areas, including Phoenix/Tucson.

Marc Sobelman of eTec presented eTec's Electric Vehicle Infrastructure Deployment Guidelines. The Deployment Guidelines document is intended to create a common knowledge base of EV requirements for stakeholders involved in the implementation of EV charging infrastructure. eTec's Deployment Guidelines provide the necessary background information for understanding EV requirements and the related codes, laws and standards for this effort. The document will provide the foundation upon which the EV Micro-Climate© program is implemented to provide the optimum infrastructure to support and encourage the adoption of electric vehicles in the MAG region.

Marc Sobleman stated that the Survey of Code Adoption table will be an addendum to the Deployment Guidelines document in version 3.0. He asked the committee members to let him know if any updates needed to be made to the addendum. Copies of the document were distributed.

An overview of the EV Micro-Climate© program was given. Marc Solbeman thanked MAG staff and the member agencies who have been helpful in providing feedback for the Deployment Guidelines. He wrapped up the presentation stating that the reason for the presentation was to get approval of the Deployment Guidelines. He then asked for questions.

Tom Paradise asked if any further thought was given as to when someone buys a vehicle and takes it home, when will they get a charging station?

eTec will get the first 4,700 Nissan Leaf vehicles which will not be available at a dealership. The 900 applicants who are selected to receive vehicles as part of this program, will be notified prior to delivery of the vehicles. They will then have several weeks to get inspections completed on individual residences or commercial establishments prior to installation of the charger and delivery of the vehicle. Once Nissan begins selling to the general public in 2011, eTec will not have control of the timeline.

Marc Sobelman added that as part of the DOE project the Nissan dealerships will have charging stations for owners to use.

Michael Clack asked if things have changed since the initial set up. He gave an overview of the process as he understood it: The contractor would go by and make sure the home of the potential buyer can accommodate the Type II charging station; the electrical contractor would then come in, get a permit and do the work; have the work inspected and then the buyer could pick up their vehicle and bring it home. Marc concurred saying that is how the process is intended. The survey that potential buyers for this program fill out will provide screening information as to whether or not their home qualifies. If, when a contractor gets out there and looks at the home, it does not meet the requirements, then the person will not be qualified for the program.

Alana Chavez of ECotality explained in more detail. Because of the time constraints on this project, it is anticipated that there will be a lot of simple scenario situations provided on the Nissan questionnaire. The questionnaire is designed to determine those homes with electrical panels that need little or no upgrade. The purpose of the study is to identify some of the more complex issues which will be addressed in the study and ECotality's response to DOE on the program.

When the consumer is in a dealership purchasing the vehicle, they will be able to simultaneously schedule an inspector, selected from an approved list, to go to their home and perform the inspection. This will cut down on the time it would take to get a level 2 charger installed in the home. All vehicles will come ready for level 1 charging.

Tom Paradise asked if it is a list of city inspectors or eTec inspectors. Marc said it is an eTec certified electrician that will inspect the home. Inspectors will be certified in the EV program. Mark Hubbard said that there will be a training period for the dealers as well so that they are not selling the cars to someone who does not have a home that can accommodate the charging. Marc Sobelman said that dealers throughout the Phoenix/Tucson area will be armed with information regarding the specs and details so that they can ensure consumers do not purchase a car then later discover it will cost a large sum of money to get the electrical infrastructure in place in their home.

Alana Chavez clarified that after the eTec inspectors check out a home it will trigger a process where the city inspectors are then notified to ensure that there is a seamless flow in the information and process. Marc added that the individual meetings with the cities and towns have the purpose of ensuring a streamlined process that runs smoothly.

Russ Lauman suggested eTec change the term “inspector” to “evaluator” for the eTec list of contractors. Marc Sobelman agreed.

Ken Sowers asked for additional questions and comments. He commented that this is an action item on the agenda. The way he reads it is that a passing vote by the committee would indicate that the committee is in support of the EV system. Heidi Bickart, MAG staff, said that it is important for each member to understand how this project will move forward. She indicated that any questions or concerns should be brought forward by committee members before the document moves forward. This Committee’s job is to review and recommend approval of the document. Recommendation of the document indicates that the Committee approves of the eTec Deployment Guidelines as the baseline for moving forward with the EV project. Heidi emphasized that if committee members need clarification on anything in the document, now is the time to ask before it gets sent up to the next level which is the Management Committee. The City and Town Managers rely on the members of this Committee to understand the technical details of the document and be in agreement with them.

Tom Paradise, Glendale, asked if the document up for review is the same document as the one presented to Glendale when eTec met with them. Marc Sobelman said yes, that is version 2. Tom asked about version 3.

Marc Sobelman said that version 3 is what will come out of this meeting. So far the changes from the meeting have been small.

Tom said that Glendale had concerns with some one line and installation diagrams in the document and if those are still in the document Glendale could not approve them.

Mark Hubbard said that at the meeting with Glendale, Mike Mosey, eTec’s Senior Electrical Supervisor brought up some of this information. Those were documents that are not part of the Guidelines. The Installation Guidelines that will be brought into the Cities in order to pull a permit are not part of the Deployment Guidelines.

Ken Sowers said deployment means this is how you plan on implementing it and where you plan on putting the charging stations but does not say how charging stations will be installed. Mark Hubbard answered that is correct.

Mark Hubbard said that eTec is working on 'simple scenario' documents that will act as a pattern for the cities or MAG suggested standard for installations. eTec is working on these documents with the cities. It is eTec's intent to bring the documents through the MAG committee process.

Ken Sowers asked that it be made clear on what the committee is approving. Marc Sobelman said that so far the only changes to version two will be minor, mostly grammar and spelling updates along with any updates for the Survey of Code Adoption document that is to be used as an addendum.

Tom Paradise asked if approval from MAG is needed for the Deployment Guidelines. Marc Sobelman responded that eTec came to MAG to request approval since MAG is a partner on the EV Project. eTec does not need approval from the MAG BCC to move forward, but since each of the chargers will be going into a city or town in the MAG region, eTec would like to have approval by the cities.

Tom Paradise said that he would like to see the complete version 3 of the document and read it before he approves it. Marc Sobelman indicated that version 3 could be completed as soon as March 30<sup>th</sup>. There has been little feedback so far indicating only minor changes.

Dennis Chase indicated that Peoria also wants to see the final documents before approving it. On Page 19 there is mention of installing a load control device and not having to upgrade the service. Peoria had some questions and concerns on this section which they discussed at their meeting with eTec. The current document does not address those concerns. Mark Hubbard said that the section should be left out completely. Dennis Chase said that if it indicated that the calculations determined an upgrade in service was needed, then it should be addressed. Marc Sobelman and Mark Hubbard indicated they understood and would revise that section of the Deployment Guidelines document.

Michael Clack said including the Survey of Code Adoption document as an addendum to the document raises a concern on what happens three years from now and this is out of date. He suggested that instead of including it as a document, make reference to it on the MAG web site, which is updated monthly. Ken Sowers said perhaps put a caveat in there about most recent codes.

Mike Williams, City of Tempe, said that they could not allow there to be a conflict between an approved plan and the City code. This document cannot supercede their code. Mike expressed concern over the committee reviewing this document because it appears to give tacit approval for any code violation that may be in this document. That is not what we (as a committee) would intend to send forward to a higher MAG Committee. He said it is incumbent on the Building Codes Committee to say whatever installations are completed need to meet code from whatever jurisdiction where they are installed. Ken Sowers agreed.

Ken stated that his concept was that the BCC was just approving the concept of EV infrastructure. Mike Williams said that it appears to be more of a planning function not a

building safety function. The members of the BCC review technical documents while planning looks at concepts. Marc Sobelman responded that this is not an installation guide. He said that the document states that each EV charging station will be installed within the jurisdiction in accordance with the codes that pertain to that. This is just a common knowledge base document as they go into their 10 year plan or MicroClimates.

Alana Chavez said that this document is not an installation guide, rather it is merely conceptual. It precedes the installation guideline which will come to the BCC for approval and that document will need to meet all code requirements of the respective jurisdictions. Alana agreed with Michael Clack's recommendation to take the Survey of Code Adoption document out as an addendum and just refer to the current version of it from the document. eTec would use it internally as a working document to stay on top of the code adoptions by jurisdiction.

Alana said she didn't know how the group wanted to move forward by suggested that Marc Sobelman make the suggested changes to the current document and they either come back next month or it is approved subject to the changes being made. This would be done with the understanding that the technical document, the Installation Guidelines, will be coming forward to the committee for input and approval in the coming months.

Russ Lauman asked if at some point they will all become one document? Mark Hubbard replied that the Deployment Guidelines and the Installation Guidelines will never be one document. Alana said the Deployment Guidelines is an education document outlining how these EV stations will be deployed on a residential and commercial basis.

Mario Rochin agreed with Mike Williams said it seems as if this is more of a planning stage document for cities, really a planning development document. He said it doesn't seem like something the Committee should get into because this is a technical committee.

Tom Ewers said that the county has had similar situations regarding planning documents or zoning ordinances referring to a building code, not realizing that the building codes change over time. He said it is more common in planning documents to refer to the more generic term of "shall conform with the current local building code." He sees this as a preliminary step and there isn't another MAG committee that is as appropriate as the BCC to look at issues like this. Tom Ewers stated he would like to see the final document before voting on it.

Marc Sobelman agreed..

Tom Paradise, Glendale, asked why eTec is asking for approval from MAG.

Alana explained the history of the EV project with ECOtality, eTec, Nissan and MAG to bring electric vehicles to the region. She explained that the reason it is important to go through this body and MAG is that MAG is the main stakeholder here in the region. They want to be sure that all MAG member agencies are completely involved in the process as it will directly affect everyone.

Alana then continued on to say that there is no formal planning committee at MAG and the Building Codes Committee was the logical technical committee to get feedback from.

Mike Baxley, Town of Cave Creek, said that as this is being looked on as more of a planning document, for Version 3 it would make sense to remove any technical portions and put those into the Installation Guidelines. Doing so would allow the Committee to review the technical portions at a later date and probably eliminate a lot of the questions coming up right now.

Michael Clack said when eTec came to Scottsdale, one of the planners did attend the meeting. He said that the document was nebulous from her perspective. He said that once the program gets into the building of charging stations that process will be reviewed by planning departments at jurisdictions. Michael said that conceptually he has no problem with the document. He agrees that the technical parts should be removed and that everyone needs to have an opportunity to review the final document.

Marc Sobelman said that the amount of technical data in the document is limited. It is all high level knowledge-base information. The technical information concerns what a level 2 and level 3 charger are but it is not an installation guide but rather a starting point.

Heidi Bickart agreed with Mario rochin and said that in looking at the document from a non-building official perspective, the technical parts in the document are in question. For example, the 2005 NEC is referenced: that is technical and also inaccurate. She suggested taking anything related to building codes out of the document if it doesn't serve a purpose or at least make the references very generic. Heidi also suggested a list of changes from version 2.0 to 3.0 be produced. It can be as simple as using the "track changes" option in Microsoft Word.

Michael Clack suggested using verbiage to replace references to specific codes such as "all applicable codes" in order to keep it generic.

Russ Louman said that if the Committee is going to approve the Deployment Guidelines then the wording of the action item will need to be rewritten to change the part that reads "the foundation upon which the EV Micro-Climate<sup>®</sup> program is implemented to provide the optimum infrastructure ...." He said that he didn't feel that the Committee members could go back to their city and say that they felt this was indeed the "optimum infrastructure." The wording as an overall concept is what the Committee would be approving and the wording should be rewritten to reflect that. Ken Sowers agreed.

Alana Chavez asked how the committee feels about including the Installation Guidelines as an addendum. Would that make it seem a more holistic document from a technical perspective?

**Tom Ewers** responded that yes it would, but that would just further delay it. He indicated that he didn't think anyone on the Committee is against the Document or that there is a "deal breaker" in the Guidelines. He said that if there is a philosophical program that the BCC recommend to a higher MAG committee to investigate and move forward then the BCC should do that in version 3 at the next meeting. Then later on eTec should come back with the actual Installation Guidelines for the BCC to review separately.

Ken Sowers said they have standard plan submittals for pools, for example, so he sees no reason why we couldn't end up with a standard set up plans for EV charging systems. And then that is what the cities would permit off of.

Rob Runge asked for a clarification on the Installation Guidelines. What is the intent? Will it be generic enough for all cities? Each one will still need to be submitted to each city and comply with their codes and requirements.

Mark Hubbard said that the general intent is to pick the city with the most stringent permit plan process guidelines and develop their process to go with that to start with for the other cities. Hopfully that will make it so that the document will work in just about every municipality they go into within the 5 markets they are working in.

Rob Runge asked if it would still be specific for each house or business. Mark Hubbard responded that is correct.

Ken Sowers asked if there were any additional questions and prepared to move forward with a vote. It was suggested that the matter be tabled until the next meeting. Several committee members agreed.

Marc Sobelman said he could get version 3 completed and distributed to members by next week and then come back for the approval at the April meeting. He expressed appreciation to the committee for their time so far in reviewing the document.

Ken Sowers asked for clarification about whether or not the version 3 would have technical information in it. Marc Sobelman said that he will review the document and get feedback from committee members as to what is considered technical. He will then delete references to all codes other than a general statement. No installation instructions will be in the document. Alana Chavez said that the Installation Guidelines will come to the committee the following month, after the Deployment Guidelines are approved.

Mike Baxley asked if it would be appropriate to send the Installation Guidelines to the Bulding Inspectors/Plans Examiners forum for review. Ken Sowers agreed.

Ken Sowers said that there is a Building Inspectors/Plans Examiners group that could look over the Installation Guidelines and he indicated that he would get information to Marc Sobelman on how to make a presentation to them.

Ken Sowers said that the Deployment Guidelines are on hold until the committee sees version 3. The motion for approval will be restated to reflect approval of the concept of the document. It is expected that version 3 will be reviewed and listed as an action item at the next BCC meeting.

### 13. Legislative Update

Patty Camacho gave a legislative update and distributed a list of MAG related bills around the table. The list represents House and Senate activity since February 1st. She explained bills that impact MAG BCC, such as the solar energy permit issues. HB 2701, Electrical Utilities Renewable Energy Standards, is a dead bill. HB 2285, City Building Permit Fee, is a hot issue which basically states that the fee has to be adequate with the level of service. As of March 8<sup>th</sup> that bill has been approved at the Committee of the Whole at the House. It was approved with a small minor amendment. Patty Camacho stated that right now the number one priority at the House and Senate is the State Budget so there has been no further action.

Patty asked for feedback from the Committee members if anyone has any bills they would like more information on and she would follow up. There were no additional bills brought up.

This item was taken out of order.

7. Arizona Building Officials (AZBO) Amendments

Ken Sowers discussed the status of the 2009 AZBO Amendments. They should be in the hands of the AZBO Board now, and no comments have been received to date. Ken stated that he distributed the amendments for MAG BCC review and asked that members provide any comments at the next meeting. He said that the intent is to make members aware of what the Code Development Committee came up with on the amendments.

Tom Ewers said they are almost the same as the amendments adopted 3 years ago. Ken Sowers agreed stating that residential care or assisted living facilities is getting some attention. Ken said that the committee on this has been working hand in hand with the State to make sure the building code and State fall in line with each other. Other than that it is mostly the same.

Ken Sowers urged the members to take some time to review these amendments and the Committee will discuss any comments at the next meeting. For some municipalities that will be adopting the 2009 AZBO Amendments having information from MAG would be more beneficial.

8. MAG Building Inspectors/Plans Examiners (BI/PE) Forum Update

Dustin Schroff, Senior Plans Examiner from the City of Scottsdale, is the new Chair of BI/PE. Ken Sowers welcomed Dustin.

Dustin said that he has distributed emails about codes and questions. He has been working on updating the approved truss manufacturers table. He looks forward to working with all of the members. They are planning to have a meeting in May.

9. Updated MAG Building Codes Committee Membership

No updates were provided. Members were encouraged to send any changes to Heidi Pahl-Bickart.

10. Update on Survey of Code Adoption Document

Maricopa County said they had one change in the last column and provided that to Heidi Bickart. Heidi requested that any changes that members have and may have provided to eTec during meetings with them be provided to Heidi so that the document could be properly updated.

11. Topics for Future Agendas

Ken Sowers said that eTec will be back with the updated Deployment Guidelines for the next meeting. The AZBO Amendments will also be left on the agenda for the next meeting as an item of discussion.

Ken Sowers stated that the AZBO Institute week will be during the same week as the scheduled April meeting. It was unanimously agreed to not hold the April meeting due to the AZBO Institute conflict.

Rus Brock announced that he is leaving HBACA at the end of April. He will be retiring. Rus stated that it has been a pleasure to work with the committee. Bridget Jones will be the new HBACA representative. Ken Sowers acknowledged Rus' contribution to the MAG BCC and wished him well on behalf of the Committee.

## 12. Adjournment

The meeting adjourned at 3:30 pm.