Community Resilience Panel:
Energy Committee

MEETING DATE: March 24, 2016
TIME: 4:00 PM EST to 6:00 PM EST
ISSUE DATE: April 27, 2016

ATTENDEES:

Attendee	Organization Name
Ronda Mosley (Chair)	PTI
Julia Phillips (Vice-Chair)	Argonne National Laboratory
Stephanie Hamilton (Secretary)	Brookhaven National Lab
Ryan Franks	National Electrical Manufacturers Association (NEMA)
Leon Kempner	Bonneville Power Administration
David Michel	CA Energy Commission
Andrew Petrow	Independent Contractor/Consultant
Haijian Shi	Pepco Holdings Inc.
E. Scott Tezak	TRC
Marcella Thompson	HDR
C Jerry Wong	DHW Engineering LLC

DISTRIBUTION: Attendees and Energy Standing Committee

NOTES BY: Stephanie Hamilton, Brookhaven National Lab

1. Welcome

Ronda Mosley (Chair) opened the meeting with an introduction of our guest speaker, Lori J. Herrick, Energy Management Administrator, City of Virginia Beach. Ronda invited Lori to help frame the stage for this committee's work. She asked each committee member to remember the community where they live and how our questions, comments and suggestions would/could affect how their community becomes more resilient. The introduction of the other panel members followed Lori's presentation.

2. Presentation by Lori J. Herrick

Lori provided a presentation to the committee. She discussed that local government does not have the resources to invest into resiliency planning or operational staff. This includes both city and county levels. She also stated that energy management is getting lost at the state level.

Lori interviewed a wide array of stakeholders in the local area when preparing her energy assurance plan. This included police and fire departments, local energy providers, medical facilities, utilities, etc.

She also discussed that energy should be monitored all the time, not just for emergencies. Additionally, Lori discussed examples of problems that arise in emergency situations. For example, as traffic signals go out due to no electricity, police have to man the intersections drawing them away from other duties. Another example Lori discussed was lack of checklists for simple things like topping off vehicles, having the keys to equipment that is can become critical during an emergency situation.

3. **There is information available, but it is not reaching local governments. The committee acknowledged the requirement for a knowledge database.**

4. **Identification of committee participants**

Ronda asked attendees to introduce themselves.

5. **Open Discussion On Lori J. Herrick's Presentation**

Communication is critical in all aspects of resiliency with all stakeholders. She interviewed personnel at agencies, such as the police and fire departments. Her staff interviewed medical facilities, schools, filling stations, etc. Lori mentioned repeatedly that she had to talk to all players in the local community.

Baselining is an issue because local communities do not know what the "blue sky" daily energy use is for four categories – liquid fuel, natural gas, electricity, and advanced technologies (solar, wind, etc.). Prioritization of critical facilities is also an issue, and is not done effectively. First, one must know how to determine which facilities are critical. Within the California Energy Assurance Program, The City of San Francisco identified over 5,000 critical facilities. In addition, the definition of critical facilities varies in each geographic area. Locals will need to have some pharmacies open and medical facilities available. In addition, they must plan energy against hazards.

No warning time is received for earthquakes, unlike the East Coast, which can receive day to weeks of warning for hurricanes. The strategies for each hazard are different. On the East Coast, communities can evacuate, while those in California must react to the earthquake event with equipment and energy on hand.

Some places on the East Coast and Outer Banks do not have enough liquid fuel for full evacuation. In addition, where power to pump gasoline is needed, and the power is out, then it must handled in some alternate manner.

The Federal government (e.g., FEMA) does provide evacuation plan guidance to local governments, but local government must generate their own plans according to their particular situation, including backup generators, shelter for those who cannot evacuate, water, and other supplies. Quick connect backup generators must be tested routinely, under full load, to assure they will work when needed. The generators must be sufficient for the energy required.

Some states have energy offices, all of which have State energy assurance plans, but most local governments have not worked with the State regarding energy and resilience. In many cases, local communities do not have staff members to support planning for resiliency.

Ronda took the floor and asked, "How do we get energy to the forefront of conversations with communities?"

Dave responded that we need checklists from utilities, and Army Corps of Engineers. Utilities have lists that need to get out there to local government.

Scott said power and fuel interdependencies among groups need to be covered in local guidelines. He mentioned that some critical facilities are looking at Microgrids.

Jerry said the availability of gasoline to transportation versus general energy has conflicting issues.

Julia commented that in the DHS Regional Resilience Assessment Program (RRAP) stakeholders often realized that group discussions, especially among those that don't typically interact, can result in eye-opening moments regarding assumptions on roles and responsibilities during response.

Ronda asserted that the committee needs to coordinate with stakeholders to get a bigger picture of the quantities fuel used by different first responders.

Julia added that the committee must also identify dependencies among the groups that need to work together.

Dave cautioned that we should not develop the options if we are not confident of the framework.

Julia responded that communication is an issue with community resilience. It should be included in discussion about response.

Ronda suggested that we have sub-committees to cover categories, such as types of fuels and energy, at the Portland meeting. In addition, we need an understanding of what needs to happen to provide backup and what to do when backup runs out.

Jerry pointed out that availability of gasoline is a major problem for responders. Vendors require electricity to operate the pumps if there is gasoline available.

Dave explained that local governments across California commonly have difficulty with the fact that earthquakes cannot be predicted in the same manner as storms. California established arrangement with the National Guard to obtain fuel directly at the refinery.

Ronda asked, "What are critical assets, critical facilities?" San Francisco had 5,000 critical facilities so it needs to prioritize.

Dave pointed out that energy in quantities is important in California. During an earthquake, California will lose large quantities of energy and recovery will be very slow. Unlike the East Coast, long term recovery for earthquakes needs to move massive amounts of fuel into California.

Dave also pointed out that baselining the schools for retrofitting will improve efficiency and, thus, help stretch energy resources to keep more facilities functional.

Ronda stated that she would like group thought to occur in Portland. To accomplish this, the group will split into sub-committees that break out into four areas: electric, natural gas, liquid fuels, advanced technology (solar, island)

Leon described Oregon's energy plan. We do not need to start from zero. Dave agreed. Leon suggested we ask someone from Portland to talk about limits on sharing and lifeline support.

Dave reminded the group that building codes and their overall design affect resiliency.

Stephanie suggested the group look at functional requirements before separating energy sources.

Dave recommended a matrix approach with baseline.

Ronda said the group's job is not to create a framework. Instead the group needs to do research for a knowledge database, identifying gaps. This research will ultimately lead to a notional framework to support development of a matrix.

Ronda polled the group. The group agreed that a hole exists for the identification and data collection effort for energy usage for community critical facilities. The group believes this is the first logical step to tackle for this committee. The results of that effort may have a huge impact on community resilience efforts.

The committee will continue fleshing out and discussing this important topic during its Portland meeting.

6. Next Panel Meeting

The next Panel meeting will be in Portland, Oregon, on April 4 and 5.

7. Schedule

The next two Panel meetings (Fall 2016 and Spring 2017) are anticipated to take place at the University of Miami in Coral Gables, Florida, and in Fort Collins, Colorado.

8. Other Business

The committee voted on and approved the minutes from the last meeting.

9. Adjournment

There being no other business, the meeting adjourned at approximately 6:00 PM EST.