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VIA ELECTRONIC MAIL: ***stephen.st.marie@cpuc.ca.gov***

October 21, 2013

Stephen St. Marie
Policy and Planning Division
California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102

Re: **Defining the SCE Living Pilot, a Symposium of Ideas (CPUC Docket No. R.12-03-014)**

Dear Mr. St. Marie:

The purpose of this letter is to offer for consideration by the California Public Utilities Commission (CPUC), Southern California Edison (SCE) and other stakeholders a new and innovative approach to scaling-up residential energy efficiency retrofits. We recommend that a "utility-scale" retrofit project be undertaken to help offset the power and other functions formerly provided by the San Onofre Nuclear Generating Station (SONGS). Johns Manville (JM) believes that such a project would fit well in the SCE Living Pilot, which will evaluate the ability of Preferred Resources to meet local capacity requirements in southern Orange County. JM, a Berkshire Hathaway company (NYSE: BRK.A, BRK.B), is a leading manufacturer and marketer of premium-quality products for building insulation, mechanical insulation, commercial roofing, cool roof membranes, and roof insulation.[1]

JM makes home insulation products that are certified to meet the ***Environmentally Preferable Insulation*** specification developed by U.S. EPA Region 9 and Alameda County, State of California. JM was also the first and only insulation manufacturer to have achieved the status of California **Climate Action Leader**. One of our flagship North American manufacturing locations making Formaldehyde-free™ fiber glass home insulation is in Willows, CA (Glenn County), about an hour north of Sacramento. The JM Willows plant makes faced and unfaced fiber glass batt and roll insulation.

JM endorses the proposal in the ***Preliminary Reliability Plan for LA Basin and San Diego***[2] to develop and procure 3,250 MW of preferred resources, which would be

[1] For more information on JM and JM products see http://www.jm.com and http://www.specjm.com
[2] DRAFT August 30, 2013; Prepared by Staff of the CPUC, CEC, and CAISO: http://www.energy.ca.gov/2013_energypolicy/documents/2013-09-09_workshop/2013-08-30_prelim_plan.pdf.

approx. 50% of the area needs based on the closure of both SONGS and other facilities subject to the once-through cooling regulations.

Enhancing end-use energy efficiency should be emphasized in the Living Pilot because efficiency features important attributes that should make it the first choice in Preferred Resources. Typically, enhancing the energy efficiency performance of existing homes and buildings can be accomplished quickly and economically and improve the health and comfort of occupants. And efficiency tends to be more labor-intensive and require more jobs to implement than many forms of renewable energy, which tend to be more capital-intensive. But most importantly, energy efficiency upgrades can be focused, even micro-targeted to individual substation areas to achieve not only demand reduction but also to help enable reactive power, relieve grid congestion and enable more importation of renewable power.

But the issue here is not how to make existing homes more energy efficient. Basic improvements to the building envelope and HVAC distribution system are actions consistently proven to be effective in reducing residential energy use. And those improvements are top recommendations in nearly every home energy audit. The real issue is how to move those actions to scale in a short enough period of time to avoid building new generation resources. Only when a sufficiently large number of homes can be retrofitted in the near future can the LA Basin (and the State) actually achieve its goals of greenhouse gas (and other) emissions reductions, expansion and integration of renewable energy sources, system reliability, and economic growth.

Accordingly, JM proposes that the Living Pilot include a "utility-scale" direct install residential retrofit program. Based on a project now underway in the Coachella Valley in eastern Riverside County,[3] JM has identified the critical criteria for defining and implementing residential retrofit to the utility scale:

- Utility scale defined as
  - very large number of projects
  - completed at reasonable cost
  - in a relatively short period of time.
- Keys to feasibility of utility scale residential retrofit
  - Must drastically reduce both
    - project cost: < $3000
    - time to complete each project unit: < 3 hours
  - focus on: sealing and insulating attic and AC ducts
  - use:
    - literally off-the-shelf products
    - installation skills quickly and effectively trained.
- Goal: **$3000 – 3 hours – 30% energy savings**

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[3] See attachment to JM comments to the Energy Commission's AB 758 Scoping Report at http://www.energy.ca.gov/ab758/documents/2012-10-08-09_workshop/comments/Johns_Manvilles_Comments_2012-10-23_TN-67998.pdf.

There are at least 50,000 homes in the SONGS service area that were built before the stringent Title 24 energy code.[4] A typical older, poor performing home is a 1,850 ft2 ranch built in the mid-1960s with no attic air sealing and only R-13 attic insulation. It would also have uninsulated and leaky metal ducts.

As a pilot for a much larger project, JM recommends the quick funding of a 5,000 home, approximately $15 million effort that would focus on clusters of older homes in the following areas:

Johanna substation -
Tustin: Tustin Meadows, Broadmoor
Irvine: Northwood, Woodbridge

Santiago substation -
Lake Forest: Countryside, Wood Leaf
Mission Viejo: Park Aliso

The pilot retrofit program could begin as early as 45 days after approval and be completed in 24 months. Since the concept is scalable, more or fewer homes could be completed in a different timeframe.

Energy use reduction would be initially quantified by adapting existing software (e.g., EnergyPro) and then calibrated by post-retrofit energy usage as reflected on energy bills. It is anticipated that the more homes retrofitted the less important is the actual energy saved in any particular home; what is important for resource planning is acceptable accuracy in the aggregate demand reduction and not great precision in measurement of energy use reduction in each home.

Thank you for the opportunity to comment. Johns Manville looks forward attending the Symposium of Ideas on November 6 and to continuing participation in the SCE Living Pilot Program.

If you have any questions, please do not hesitate to contact me. Thank you.

Sincerely,

Bruce D. Ray

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[4] Over 50% of the homes in the US are under-insulated and unsealed. If SONGS was serving 1.4 million homes, the 50,000 proposed is only 5% of the total homes in the service area. The actual number of homes that could benefit from a retrofit could be much greater.