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Vice President

Additional submitted attachment is included below.

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September 1, 2015

Dear California Energy Commissioners and WET Program Staff,

Thank you for allowing the opportunity to submit our comments and feedback on Phase Two of the Water Energy Technology (WET) Grant Program, a program that will be essential to California leading the way in the investment and deployment of new greenhouse gas and water saving technologies. We commend the California Energy Commission (CEC) for their efforts to ensure that our state accelerates deployment of innovative and proven drought and climate adaptation tools that are needed now more than ever. Ecolab looks forward to partnering with the CEC and other state agencies on implementing efficient, effective and innovative ways to meet greenhouse gas emission and water use reduction goals.

As a water management company, Ecolab helps its customers conserve and use water and energy more efficiently to meet their sustainability and business goals at more than 1.3 million locations around the world. Globally, businesses are setting ambitious water goals; Ecolab helps them achieve these goals while also reaching energy consumption reduction goals. Ecolab supports its customers' efforts to become more sustainable and reduce the amount of energy and water they consume while producing vital goods and services.

Our global leadership position in water management provides us with an in-depth perspective on industry's impact on water and energy. We serve a wide range of commercial, institutional and industrial customers across many industries including:

- Healthcare/infection prevention
- Foodservice/hospitality
- Food and beverage processing
- Industrial water services

An example of the wide range of solutions we offer that help our customers save water and energy is our 3D TRASAR Technology for Cooling and Boiler Water. In a given customer site, this technology can improve energy efficiency while saving up to 30% of the water used in these applications. Additionally through this program, a customer can maintain the gains achieved through our ongoing monitoring and control of these critical systems.

1. **How can this draft GFO best complement efforts to reduce on-site GHG emissions and improve water efficiency in the commercial, industrial, and residential sectors? What specific changes would you suggest to the GFO to best accomplish this?**

Investment in water-energy saving technologies, designed for the Commercial, Industrial and Institutional (CII) sector, is essential to ensuring that California meets its climate and water goals. Excluding Agricultural and non-usable water resources, the CII markets represent 30% of water use, so ensuring that financial incentives are offered to these industries (in addition to residential end users) to support newer and more efficacious California technologies will have a very positive impact on energy and water use reduction. SB x7 7 (2009) recognized that water conservation achieves significant energy and environmental benefits and can help protect water quality, improve stream flows and reduce greenhouse gas emissions. In a 2013 report, the Dept. of Water Resources (DWR) recognized the CII

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sector "is fundamental to California's economy and structure." The report further noted "It employs residents, provides goods and services, and maintains the state's position as a center for technology and innovation."

Companies will invest in newer-to-California technologies where economics make sense--in technologies that can deliver operational savings in energy and water use and thereby reduce the amount of GHG emissions and water usage. Grant funding will encourage companies to more actively look at these programs, reduce the up-front investment cost, encourage them to adopt sooner, and produce the desired GHG emission, energy and water savings, etc.

Ecolab recommends the following to complement current efforts to reduce on-site GHG emissions and improve water efficiency in the CII and residential sectors:

1. Given the tight timelines for achieving the state's greenhouse gas emission and water reduction goals, CEC grant funds should focus on immediately deployable technologies that maximize water and energy savings in those sectors within CII where there is significant potential for savings. Technologies that could yield a minimum of 20-30% water savings, with accompanying energy savings, would be ideal.

   Some examples of technologies which can be immediately adopted:

   i. HVAC and process cooling water control technologies that deliver significant energy and water savings in industrial and commercial sites, and can deliver water savings of up to 30% and improve energy efficiency.
   ii. Process control technologies that deliver significant energy and water savings in the food and beverage sector for clean in place applications can allow systems to run at optimized levels, reducing the amount of energy required to operate by up to 20% and reduce water use by up to 15% or potentially more, dependent upon the type of processing plant.
   iii. Lower temperature/lower water use warewashing applications can reduce water use by up to 50%; energy use can be reduced by up to 50%.
   iv. Monitoring technologies and products that reduce energy use/GHG production by reducing the amount of heat required to clean laundry and allow systems to run at optimal heat exchange levels. Combined technologies and products can reduce water use by up to 40%, with commensurate reduction in the amount of energy required to clean.

2. Funding should be available for purchased or leased-systems, the latter to reduce hurdles to adoption due to significant up-front capital costs and so that as technologies improve, water users can consistently upgrade and improve outcomes for the state with regard to GHG emission and water reduction.

3. Awards should be small enough to maximize adoption across industries to maximize benefits to the state. Specifically, lower cost solutions that are tested with proven and calculable savings (though not yet fully deployed in California) should be prioritized. Additionally, technologies that are either low in cost or with low up-front costs (i.e., leased systems which reduce need for up-front capital) should be favored. This will allow even small operators within larger sectors (individual franchisees, for example) to access grant funding and contribute to segment-wide efficiencies. We also believe that allowing funding for lower cost solutions will maximize adoption in the state's disadvantaged communities. These lower cost opportunities are

discussed further in these comments

We recommend that that there be no minimum grant amount for awards, to allow adoption of lower-cost technologies that bring maximum water and energy/GHG-saving benefits to the state. This could be accomplished through the establishment and allocation of some funding toward customized standard rebate programs. Ecolab could work directly with the CEC to develop this program for the benefit of the industry. Rebate programs could offer specific sites $600-40,000 for each site, dependent upon the type of technology being deployed and its cost.

2. **What specifications and/or criteria are needed to ensure the purpose, instructions, and eligibility requirements are clear.**

Ecolab embraces the goal of investment in new technologies to improve the state's progress in the water reduction and GHG emission-reduction sectors. However, Ecolab believes that the deployment of existing technologies that are not widely adopted in California may significantly improve the state's water and energy/GHG savings outcomes. Additionally, existing technologies have quantifiable track records and will improve the predictability of outcomes. We suggest:

- Criteria should be clear in allowing that existing technologies not currently utilized by applicant are eligible.
- Criteria should be clear that leased systems are eligible.
- Criteria should not require minimum awards amount.
- Criteria should include reference to ability to deploy a solution across multiple sites to create the largest water and energy savings for California (this would provide incentive to multi-unit operations that could install technologies that could deliver substantial savings).

3. What grant award amounts would be most appropriate and what percentage of the project cost would this represent?

Ecolab suggests smaller award amounts that can be utilized over broader segments of industries to maximize potential savings through industry segments. To this end, we would discourage a minimum awards amount or have minimums at modest amounts for rebate-type programs (see prior comment above). Similar to programs some water districts have in place, potential water/energy savings outcomes over baseline should drive awards. This type of program would be very similar to that established for residential water users, to encourage them to adopt on a more widespread basis technologies that can save water and energy. Providing incentive to cover 50% or more of a project cost would help customers more quickly adopt water and energy savings technologies.

4. How can this phase of the WET Program best bring benefits to disadvantaged communities?

Ecolab believes a focus on major industries in disadvantaged communities, combined with a cost-structure which allows smaller businesses within the largest sectors to avail themselves of grant funding will best bring the benefits of this program to disadvantaged communities. For example, food processors are major employers in many of the geographic areas encompassed in the state's disadvantaged communities. Technologies that benefit these employers, helping them to reduce water, energy/GHG's, costs and uncertainty surrounding costs and the availability of resources, improve their ability to invest in employment and increase their ability and desire to remain in those communities.

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Additionally, providing lower cost options to smaller businesses within a sector could allow for greater reach of these technologies into more disadvantaged areas of the state

5. **What is the capability of obtaining utility data for pre- and post-energy and water use? If utility data are not available, how will pre- and post-results be documented?**

Ecolab would support the use of meters to capture the actual water and energy savings achieved. Meters would have to be funded and installed to capture the savings; this does place extra burden on a site, so including funding in this program to offset the cost of this measuring could be valuable. Alternatively, each water district could best decide how to handle the pre/post metering to measure savings.

Ecolab solutions are compatible with use of metering. In some cases our solutions can capture these savings directly, while in others meters would have to be installed to capture utility usage pre and post install of a solution.

If metering is not available, estimating water savings from industry norms or proven results from a similar water user site could be used to document savings. This can help overcome the hurdle for implementation of water savings technologies, and has proven to be a successful model when these other measuring techniques are not able to be employed.

6. **How do address the issue of confidentially in utility, energy and water data?**

Service providers, such as Ecolab, have smart technologies leading to water and energy efficiency capable of capturing system water data and information for the site water user. In our experience the site owner determines to what degree the system information would be shared with other stakeholders.

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