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Comments of the Natural Resources Defense Council (NRDC) on the California Energy Commissionâ€™s Workshop on the Water Energy Technology Programâ€™s

Additional submitted attachment is included below.

Comments of the Natural Resources Defense Council (NRDC) on the California Energy Commission's (CEC) Public Meeting on *Drought Response: Water Energy Technology* (WET) *Program*
Docket Number 15-WATER-01
September 1, 2015
Submitted by: Sierra Martinez

I. Introduction and Summary

The Natural Resources Defense Council (NRDC) appreciates the opportunity to offer these comments on the California Energy Commission's (CEC) public meeting entitled "California Energy Commission Drought Response: Water Energy Technology Program," held August 26, 2015 in Pomona, California. NRDC is a non-profit membership organization with nearly 70,000 California members who have an interest in receiving affordable energy services while reducing the environmental impact of California's energy consumption.

II. Discussion

NRDC greatly appreciates the work of the Energy Commission staff to respond to the Governor's Executive Order B-29-15 which directed the Commission to address the drought through a statewide water energy program. Under this effort, we support the CEC's work to accelerate the deployment of innovative water-saving technologies that will save energy and reduce greenhouse gas emissions, in concert with the Department of Water Resources and the State Water Resources Control Board. We strongly support: (i) the requirement that any CEC funds issued to desalination projects must result in direct, on-site greenhouse gas (GHG) emissions and increases to energy efficiency; (ii) a robust independent monitoring, measurement, and verification process to ensure GHG and energy reductions are verifiable, and (iii) exclusively focusing on brackish water desalination projects in this 2015-2016 WET program cycle.

A. We applaud the Commission's actions to require that any desalination project receiving CEC grant funds must reduce direct, on-site GHG emissions and increase energy efficiency.

In the joint agency meeting notice, the CEC affirmed that it will require any desalination project to reduced direct, on-site GHG emissions and to increase energy efficiency: "Phase 3: Desalination, This phase will provide grant funding for innovations in reducing energy use and GHG emissions in existing desalination plants and plants currently under construction. Projects must result in on-site, direct GHG emission reductions, while increasing on-site water production

efficiency."[1] We support this requirement wholeheartedly, as this decision is critical to achieving the overall objective[2] of meeting the state's water and climate needs.

B. NRDC support using a robust measurement and verification framework to ensure that desalination projects provide the claimed carbon and environmental benefits.

We commend the Commission for adopting the requirement that desalination projects must demonstrate GHG reductions using an ARB-approved methodology in the Staff Final WET Rebate Program Guidebook.[3] NRDC finds it imperative that all projects and programs receiving any funds from through the Water Energy Technology program, be evaluated and selected with a consistent, credible methodology for quantifying carbon emission reductions. Grants proposed by this program must all be found to achieve meaningful reductions of GHG emissions. The August 26, 2015 meeting identified detailed protocols for measurement and verification of projects in Phase 2 of the WET program, including requiring provision of energy consumption data, engineering schematics, engineering assumptions of the project, and on-site information. We support using at least the same for Phase 3. The meeting notice proposes to use evaluation criteria focusing on: "GHG emission reductions and amount of additional water production per unit of energy compared to the existing 2 desalination system; technology innovation and project design; and measurement, monitoring, and verification (MMV) approaches to ensure that both GHG emissions reductions and water production increases are occurring." We fully support such a robust measurement and verification framework.

C. NRDC recommends that the CEC exclusively focus on brackish water desalination projects in this 2015-2016 WET program cycle.

One key issue presented in the August 26, 2015 meeting is whether the Energy Commission should focus exclusively on brackish water desalination.[4] Ocean desalination presents a hosts of additional risks and challenges, including but not limited to: impingement and

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[1] CEC, "Notice of August 26, 2015: Drought Response: Water Energy Technology Program - Public Meeting in Pomona," 15-WATER-01, TN# : 205660, (August 7, 2015); confirmed in August 26, 2015 Public Meeting.
[2] "Accelerate deployment of innovative technologies that reduce GHG emissions from existing desalination plants or plants under construction that will result in reduced energy use and increased on-site water production efficiency." CEC, "Presentation - Phase 2: Commercial, Industrial and Residential; Phase 3: Desalination by Laurie ten Hope," Slide 32 (August 26, 2015).
[3] "Estimate direct, on-site annual GHG emission reduction potential from this technology. Include all calculations and assumptions used in the determination of annual GHG emission reductions in metric tons per year. GHG reductions must be quantified using a methodology approved by ARB." CEC, "Staff Final: Water Energy Technology Rebate Program Guidebook," p. 39 (July 3, 2014).
[4] "Staff is considering whether to limit funding to brackish water or to include ocean water desalination as well." *Supra* note 1.

entrainment of fish and other marine life; discharge of potentially toxic concentrated brine; potential impacts to California's newly created Marine Protected Area network; potential to jeopardize water quality standards; and predisposition to sites that are vulnerable to climate-change-induced sea level rise and other coastal hazards.[5] Before any disbursal of WET program funds to this category of projects, the Commission would need to develop and incorporate significant and additional environmental metrics into project evaluation criteria, which would entail significant Commission resources. In light of the increased risks, increased environmental costs from ocean desalination projects, and the need to address the state's water and climate needs in a timely manner, we recommend that the Commission focus exclusively on brackish water desalination projects in this WET program cycle.

Furthermore, one of the focuses of this WET program is to fund projects in disadvantaged communities. At the August 26, 2015 meeting, it was noted that brackish water desalination are located in inland areas, and may increase the probability of identifying projects that are located in disadvantaged communities. In furtherance of this program objective also, we recommend limiting this cycle of WET program funds to brackish water desalination.

III. Conclusion

Thank you for the opportunity to comment on the CEC's Water Energy Technology August 26, 2015 public meeting. NRDC applauds the Commission for its response to the Governor's call to action to respond to the drought – in particular for its assurance that any desalination projects that receive WET program funds must reduce GHG emissions and increase energy efficiency. We urge the Commission adopt the recommendations above.

[5] NRDC, "Proceed with Caution: California's Drought and Seawater Desalination," (May 2014). Available at: http://www.nrdc.org/oceans/files/ca-drought-seawater-desalination-IB.pdf.