Climate Change Scoping Plan Implementation Workshop

Measure W-2 Water Recycling

Water-Energy Climate Action Team (WETCAT)
State Water Resources Control Board
California Public Utilities Commission

March 4, 2009

CLIMATE ACTION TEAM (CAT)

- Created by AB32 - coordinated by Cal/EPA
- Includes many state agencies
- Mission: formulate measures to reduce GHG emissions by 20% by 2020. Provide them to ARB for the AB 32 Scoping Plan
- Implemented by sector subteams
- Water-Energy Team (WETCAT)

Objective and Concepts

- Water-Energy Sector evaluated by the Water Energy Team (WETCAT)
- Objective of measures is to reduce Greenhouse Gas (GHG) emissions
- Embedded Energy
- Accounting in AB32 Scoping Plan under the Energy Sector (Electricity)
- Burden of Supply and Conveyance

Water Recommendation ($MMTCO_2E$ in 2020)

Measure	Measure Description	Reduction
W-1	Water Use Efficiency	1.4
W-2	Water Recycling	0.3
W-3	Water System Energy Efficiency	2.0
W-4	Reuse Urban Runoff	0.2
W-5	Increase Renewable Energy Productions	0.9
W-6	Public Goods Charge	TBD

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POTENTIAL ENERGY SAVINGS BY REPLACING IMPORTED WATER WITH RECYCLED WATER

	Supply & Conveyance (MWh/AF)	–	Recycling (MWh/AF)	=	Savings (MWh/AF)
NorCal	**0.7**	–	**0.7**	=	**0.0**
SoCal	**3.2**	–	**0.7**	=	**2.5**

Recycling Energy Use = Wastewater Treatment + Water Treatment

SOURCE: Supply and Conveyance data from Navigant Consulting, Inc. 2006. *Refining Estimates of Water-Related Energy Use in California.* California Energy Commission, PIER Industrial/Agricultural/Water End Use Energy Efficiency Program.

Measure W-2: Water Recycling

This measure proposes a requirement for development and implementation of water recycling plans by wastewater management agencies working with water supply agencies. This requirement would apply where the recycling of treated effluent is not maximized at wastewater treatment plants located in areas of imported water supply and where water recycling could require less energy than current water sources. Implementation of water recycling plans would be prioritized for those plants that discharge to water bodies from which the wastewater cannot otherwise be easily recovered, such as the ocean and brackish water bodies.

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