

LADWP Renewable Development Goals and Challenges

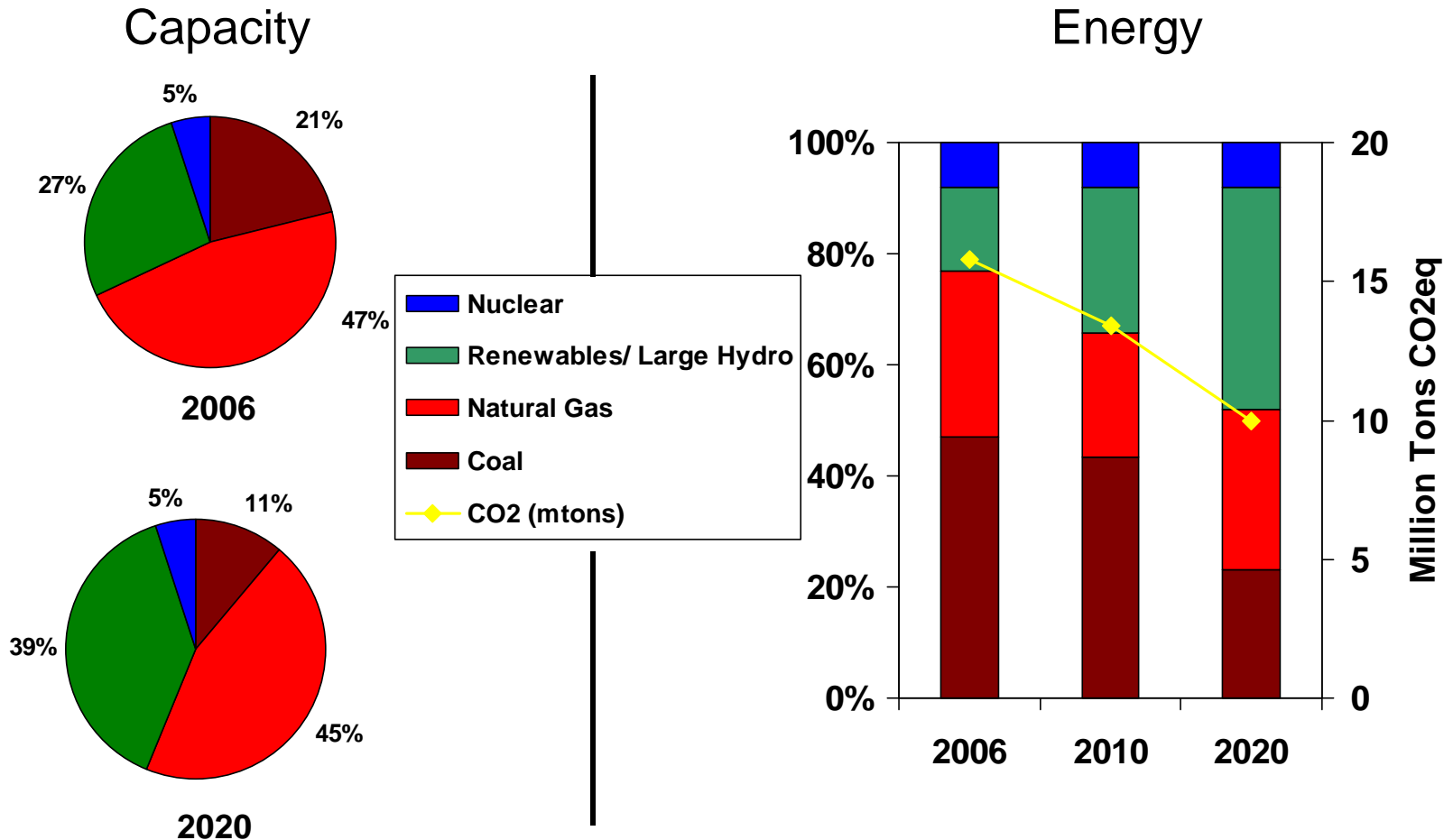
James H. Caldwell Jr.
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About LADWP

- **Nation's largest municipally owned utility**
 - 6100 MW peak load; 25,000 GWH/yr energy sales
 - 10% of CA generation; 25% of CA transmission
- **Remains vertically integrated and independent of CAISO**
- **Locally adopted ambitious plans for carbon footprint reduction:**
 - 20% renewable portfolio by 2010
 - 35% renewable portfolio by 2020
 - 35% reduction in GHG emissions by 2035
- **State mandated targets:**
 - 20% renewable portfolio by 2013
 - Return to 1990 GHG emission levels by 2020
 - 50% reduction below 1990 GHG emissions by 2050 (goal)
 - No new investments in coal or other high carbon technologies

LADWP Resource Mix

2007 Integrated Resource Plan



NOTES:

1990 GHG emissions = 17.6 MT CO2eq

1.1 % load growth 2006-2020 met with energy efficiency

Southern California Renewable Resources



	Wind (MW)	Solar (MW)	Geothermal (MW)
Existing	500	~800	400
In Development /Planned	4,500	1,200	2,000
Potential	6,000+	40,000+	3,000+

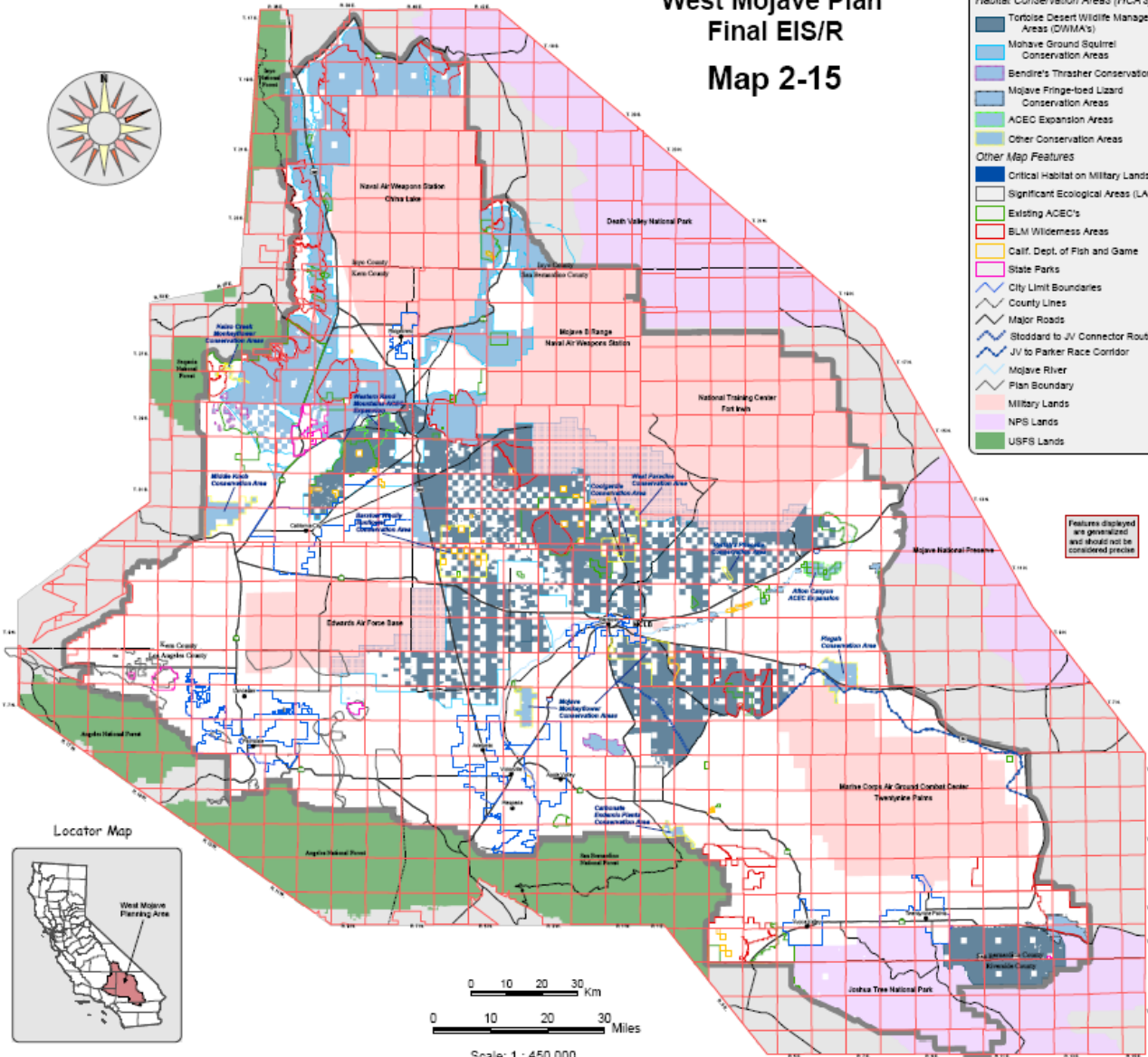
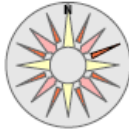
Alternative B Conservation Areas

West Mojave Plan Final EIS/R Map 2-15

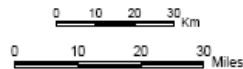
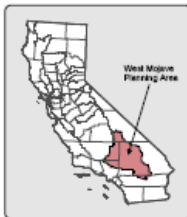
Legend

- Habitat Conservation Areas (HCA's)**
- Tortoise Desert Wildlife Management Areas (DWMA's)
 - Mojave Ground Squirrel Conservation Areas
 - Bendire's Thrasher Conservation Areas
 - Mojave Fringe-toed Lizard Conservation Areas
 - ACEC Expansion Areas
 - Other Conservation Areas
- Other Map Features**
- Critical Habitat on Military Lands
 - Significant Ecological Areas (LA Co.)
 - Existing ACEC's
 - BLM Wilderness Areas
 - Calif. Dept. of Fish and Game
 - State Parks
 - City Limit Boundaries
 - County Lines
 - Major Roads
 - Stoddard to JV Connector Route
 - JV to Parker Race Corridor
 - Mojave River
 - Plan Boundary
 - Military Lands
 - NPS Lands
 - USFS Lands

Features displayed are generalized and should not be considered precise



Locator Map



Scale: 1 : 450,000

LADWP IRP Issues

- Can we site transmission?
- Should we wait for “2nd generation” solar technology?
- Can we resolve desert land use issues?
- Can we “buck the trend” on energy efficiency/DSM?
- Will cap and trade market structure allow us to retain the resources required to execute plan?
- Can we finance the plan?
- Can we execute the plan given work force demographics/skills?
- Is the plan bold enough and fast enough?