



California Renewable Energy Program Presentation for the International Executive Conference on Concentrating Solar Power



Marwan Masri
Manager, California Renewable Energy Program

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U.S.A. Renewable Initiatives

- 12 states have a renewable portfolio standard
- 15 states have a public goods charge
- Federal renewable portfolio standard legislation is being considered



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States with a Renewable Portfolio Standard

State	RPS Requirement
Arizona	1% by 2005. 1.05% in 2006 and 1.1% in 2007.
California	Proposed 20% by 2010
Connecticut	5.5% in 2000, 6% in 2005, and 7% in 2009.
Iowa	2% of 1999 sales of electricity.
Maine	30% of sales in 2000 (start of competition).
Massachusetts	1% of sales from new renewables by 2003, 4% in 2009.
Minnesota	425 MW of wind by 2002, 125 MW of biomass by 2002, and 400 MW more wind by 2012. 4.8% of 2012 sales.
Nevada	5% of electricity sales by 2003 and up to 15% in 2013.
New Jersey	1% by 2006 then up to 4% by 2012.
New Mexico	5% by 2002.
Pennsylvania	2% in 2001 while increasing up to 0.5% per year.
Texas	2880 MW by 2009 along with 2.3% of 2009 sales.
Wisconsin	0.5 by 2001 increasing to 2.2% by 2011.



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States with a Public Goods Charge

State	PGC per Year
Arizona	\$27 million
California	\$425 million
Connecticut	\$112 million
Illinois	\$13 million
Massachusetts	\$165 million
Minnesota	\$4.5 - \$8.5 million
Montana	\$14 million
New Jersey	\$140 million

State	PGC per Year
New Mexico	\$11.6 million
New York	\$150 million
Ohio	\$100 million
Oregon	\$50 million
Pennsylvania	\$55 million
Rhode Island	\$17 million
Wisconsin	\$66 million



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Federal Renewable Portfolio Standard Proposals

Bill	Author	Requirement	Status
<i>Renewable Energy and Energy Efficiency Investment Act of 2001 (S. 1333 and H. 3037)</i>	Senator Jeffords (I-VT) and Rep. Pallone (D-NJ)	2.5% in 2002, 3% in 2003 rising 1%/year until 10% in 2010 and 20% in 2020.	Pending in the Senate Committee on Energy and Natural Resources.
<i>Comprehensive Renewable Energy & Energy Efficiency Act of 2001 (H. 2478)</i>	Rep. Woolsey (D-CA)	3% in 2002, 4% in 2004 rising 1%/year until 10% 2010 and 20% in 2020 onwards	Referred to the House Subcommittee on Energy and Air Quality.



California's Renewable Energy Program Overview

- Began operation January 1998
- Supports existing, new and emerging renewable technologies
- Funding \$540 million, 1998-2002 (\$135 million per year)
- Funding flows through four “accounts:” New, Existing, Emerging, and Customer-side
- Funding originally scheduled to expire January 2002
- Legislation passed in September 2000 extends program funding (\$135 million per year) for 10 years from 2002 to 2012
- CEC developed investment plan for new funding (June 2001) for the first five years



Funded Technologies/Market Application

Technology	Market Application	Form of Incentive	Incentive Level
Photovoltaics and Solar Thermal Electric	On-site Generation	\$/watt capital cost buydown	up to \$4.50/watt or 50% of capital cost
Solar Thermal Electric (Existing Facilities)	Central Station	\$/kWh production incentive	up to \$0.010 / kWh
Solar Thermal Electric (New Facilities)	Central Station	\$/kWh production incentive	up to \$0.015 / kWh



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Solar Thermal Electric Facilities in California

Facility	Capacity (MW)	Operational Date	Contract Type
SEGS 1 And 2/Sunray Energy, INC	43.8	1/1/85	NEG
SEGS 3, Luz Solar Partners LTD	36.0	12/18/86	ISO4
SEGS 4, Luz Solar Partners LTD	36.0	12/23/86	ISO4
SEGS 5, Luz Solar Partners LTD	37.0	9/29/87	ISO4
SEGS 6, Luz Solar Partners LTD	37.0	12/25/88	ISO4
SEGS 7, Luz Solar Partners LTD	37.0	12/29/88	ISO4
SEGS 8, Luz Solar Partners LTD	80.0	12/1/89	SO2
SEGS 9, Luz Solar Partners LTD	80.0	10/1/90	SO2
Total (8 Facilities)	386.8		

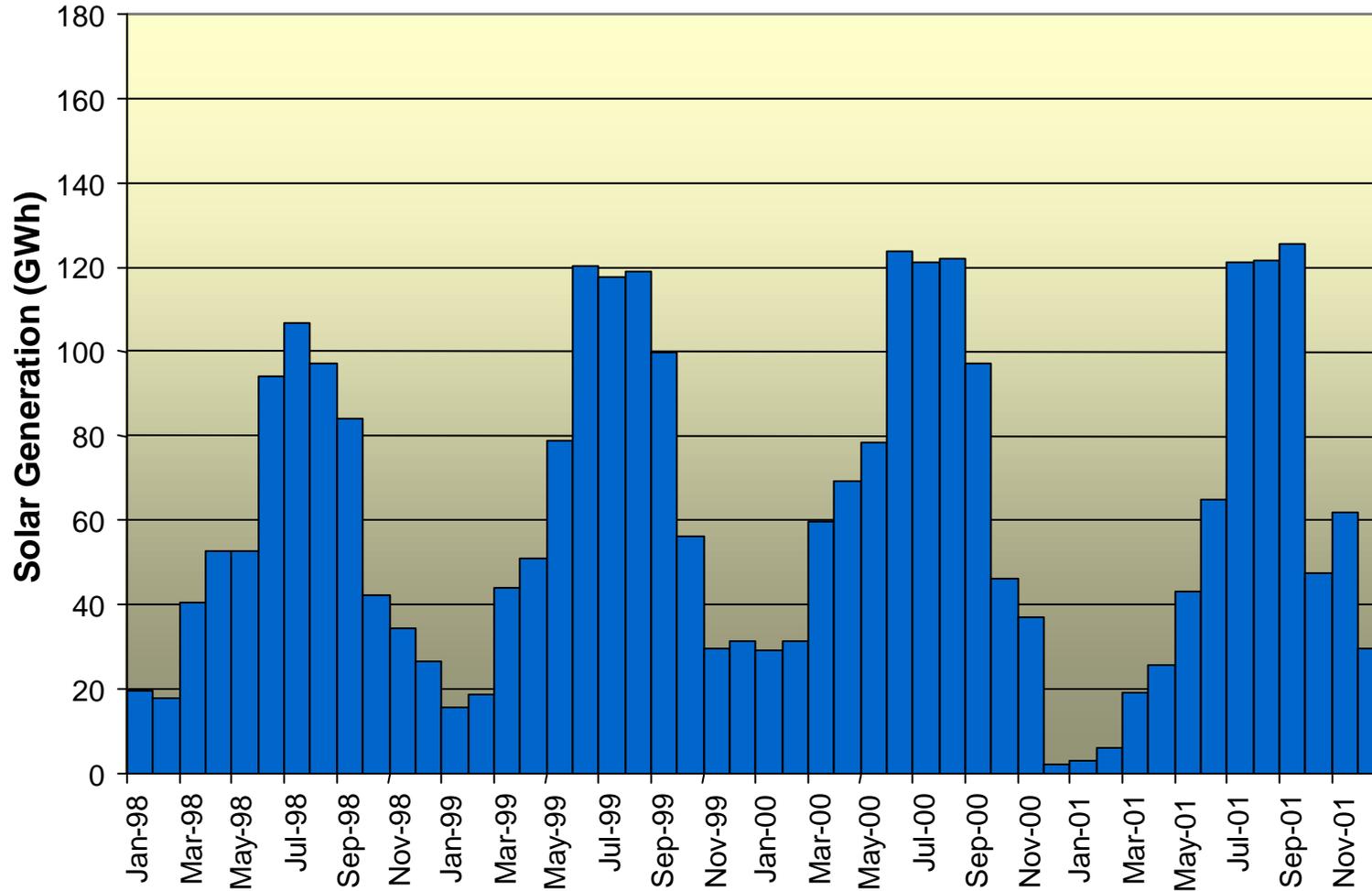
- As of May 1, 2002, all of these facilities are operating under amended contracts that pay them an average of 5.37 cents/kWh.



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Solar Thermal Electric Generation in California (1998 to 2001)

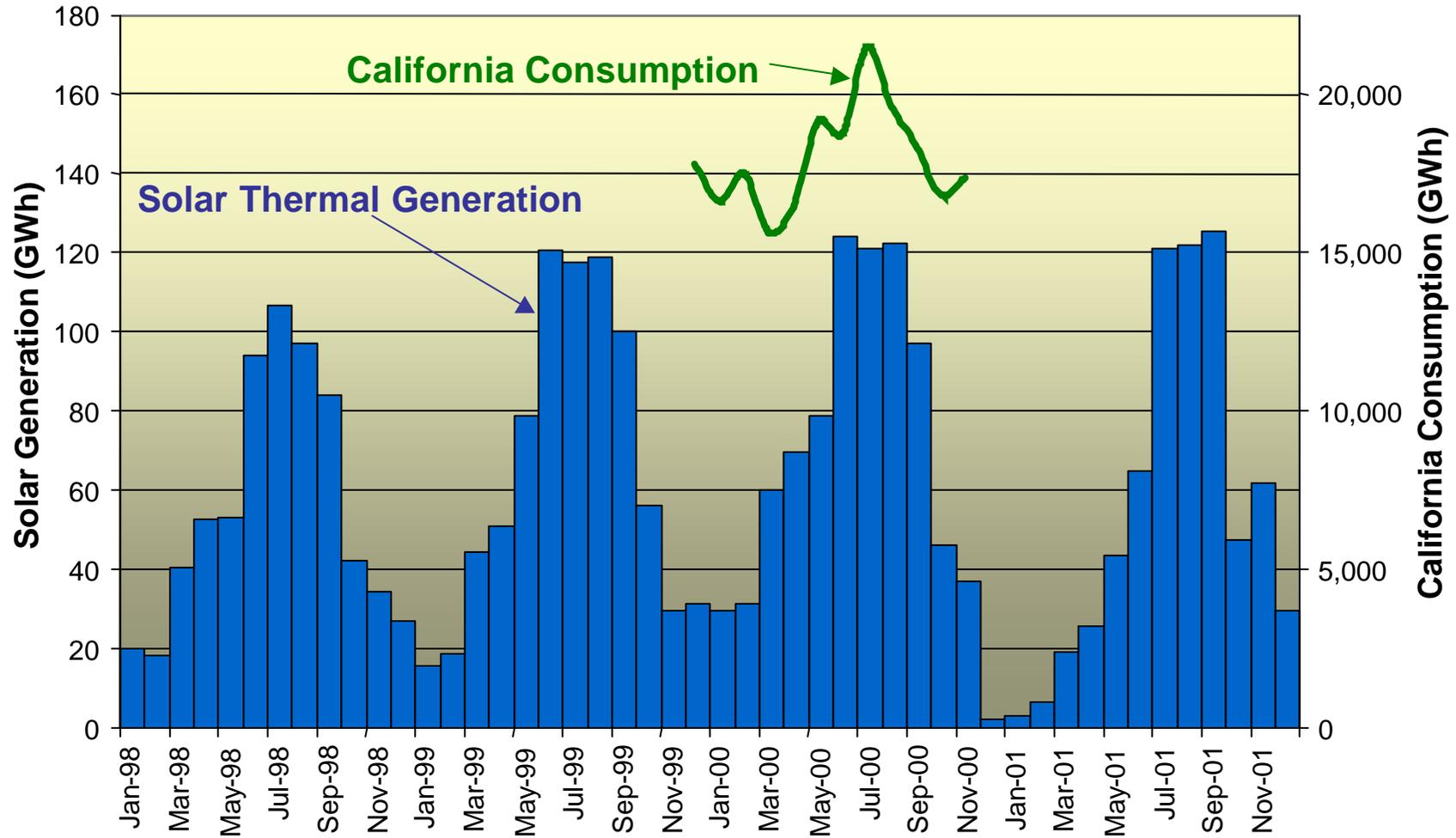




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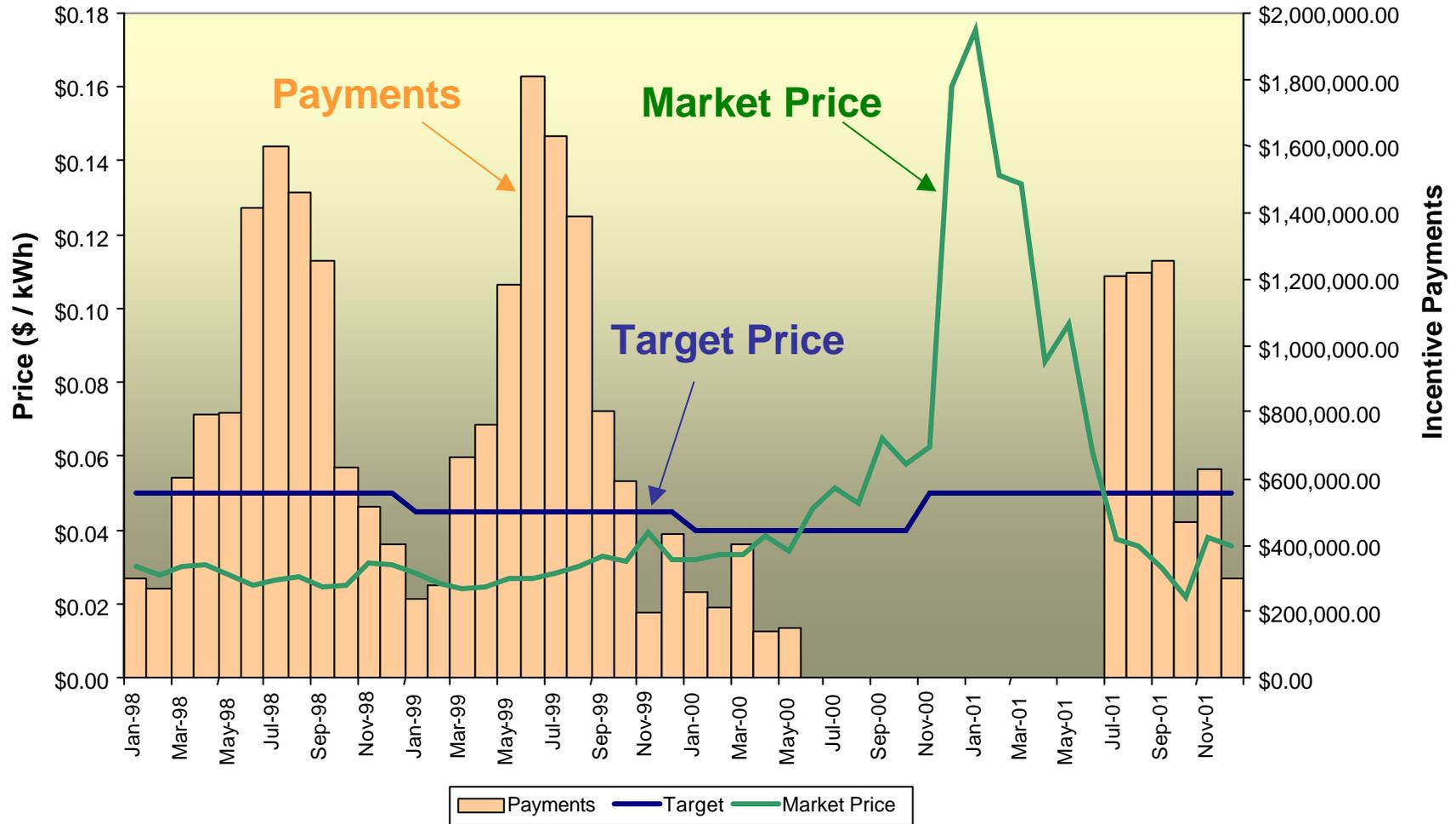




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Existing Solar Thermal Facilities Target Price vs Market Price





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Generation and Payments to Solar Thermal Facilities Under the Renewable Energy Program

Year	Generation (kWh)	Incentive Payment
1998	669,669,346	\$10,045,040
1999	782,882,584	\$9,981,953
2000	818,088,134	\$1,172,294
2001	671,395,646	\$5,085,634
Total	2,942,035,710	\$26,284,921

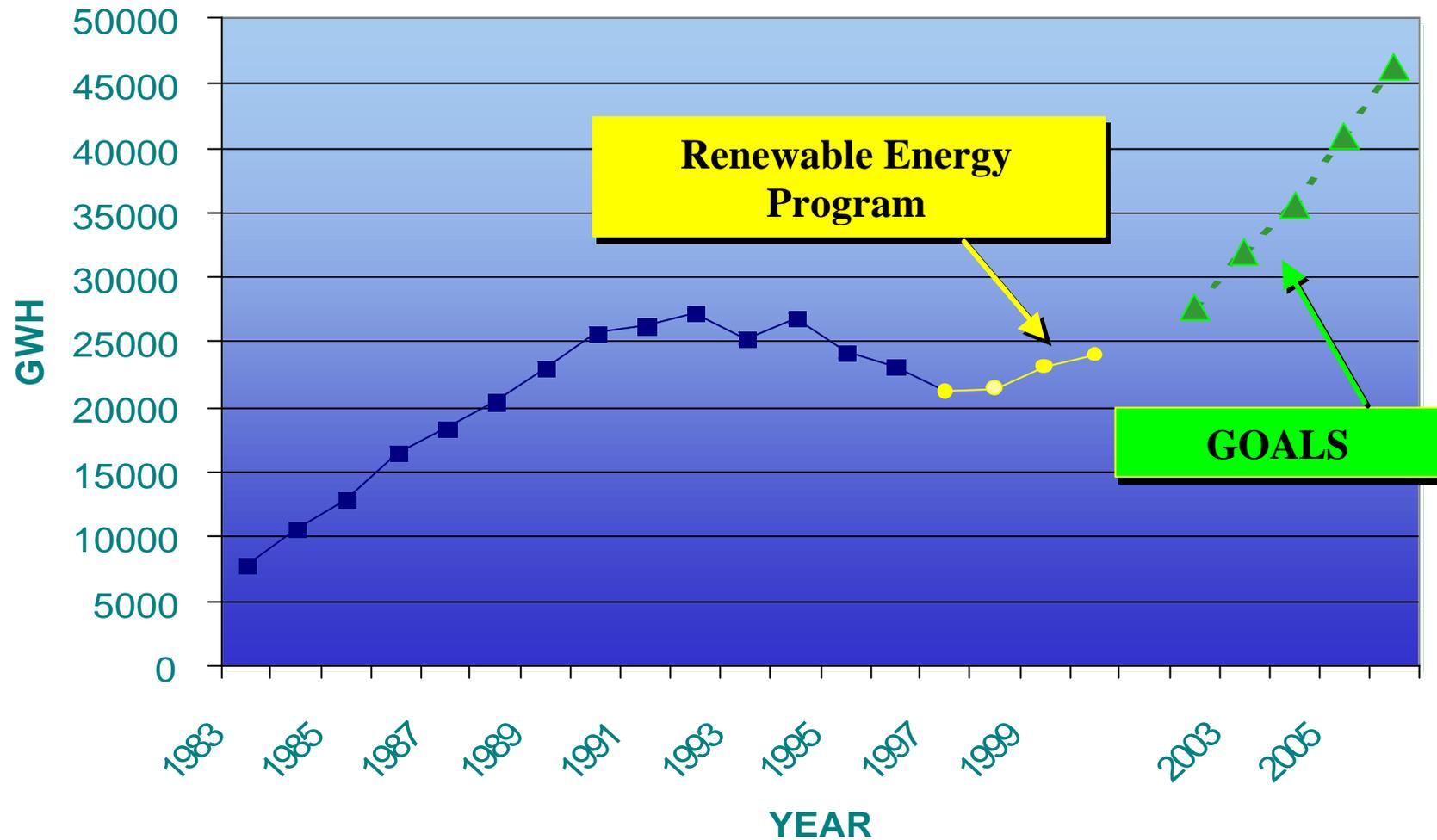


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INVESTMENT PLAN

Renewables Generation Goals





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Call Center

800-555-7794

Websites

www.consumerenergycenter.org

www.energy.ca.gov/renewables