

Installed Base of DG and CHP

CHP Analyst Meeting
ACEEE, April 6, 2006

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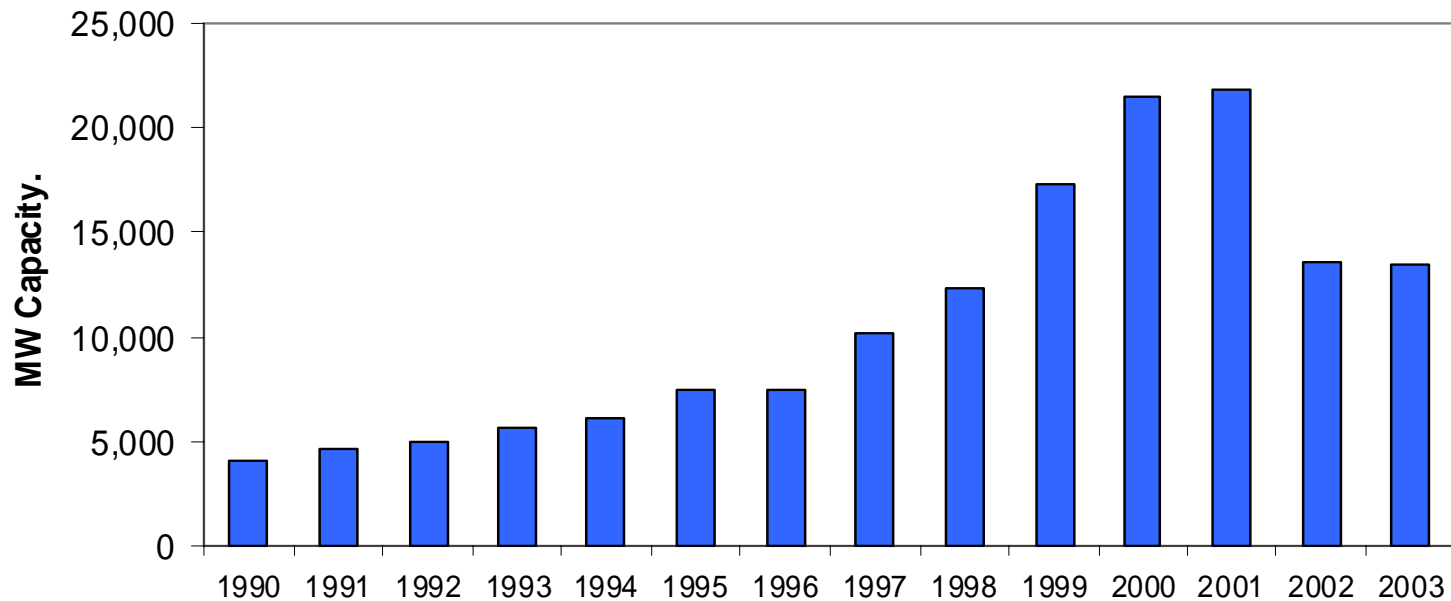
Installed Base of DG and CHP (2003)

- Currently 222 GW of DG installed in U.S., up from 173 GW in year 2000
- Based on units under 60 MW with output used near load
- 75 percent is small recip engines used for emergency or remote power
- Also includes CHP, baseload and peaking applications
- CHP represents 16 percent, or 34.7 GW, of the installed base of DG

The Installed Base of U.S. Distributed Generation

DG Continues to Be Installed, But Pace is Slowing

Capacity (MW) at the End of 2003 by Year DG Was Added

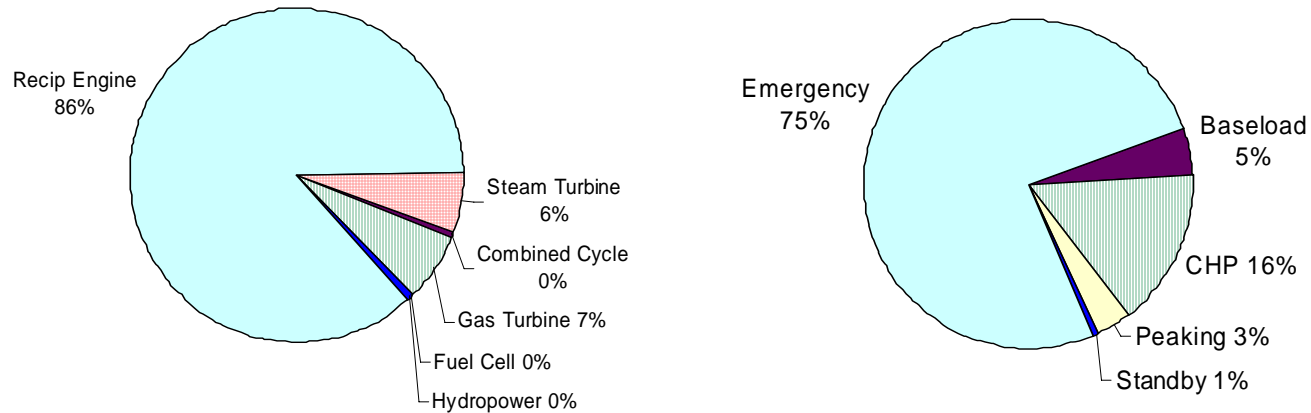


Source: Resource Dynamics Corporation, *The Installed Base of U. S. Distributed Generation*

The Installed Base of U.S. Distributed Generation



Mostly Reciprocating Engines and Emergency Applications



Source: Resource Dynamics Corporation, *The Installed Base of U. S. Distributed Generation*

The Installed Base of U.S. Distributed Generation

Small CHP Continues to Be Installed

Capacity Installed 2000-2003 by Application (MW)

Application Size (MW)	Baseload	CHP	Peaking	Connected Standby	Emergency/ Standby	Total MW Capacity
<= .015					0	9,320
.016 - .050		35			3,010	3,040
.051 - .10		68	17		3,350	3,440
.11 - .20		128	39		3,800	3,970
.21 - .40	80	318	159		7,400	7,950
.41 - .60	77	459	230		6,890	7,660
.61 - .80	136	477	409		5,790	6,810
.81 - 0.99	150	548	399		3,890	4,980
1.00 - 2.00	1,620	1,960	399	34	6,370	10,400
2.01 - 3.50	947	1,890	392		3,970	7,200
3.51 - 5.00	102	105	14	8	28	257
5.01 - 7.50	213	651	56		96	1,020
7.51 - 10.0	9	85	8			102
10.01 - 15.0	73	373		12		458
15.01 - 20.0		70	50			119
20.01 - 30.0	230	2,380	94			2,710
30.01 - 40.0	177		102			279
40.01 - 50.0		177	136			313
50.01 - 60.0	171	266	54			491
Total MW	3,980	9,990	2,560	54	53,900	70,500

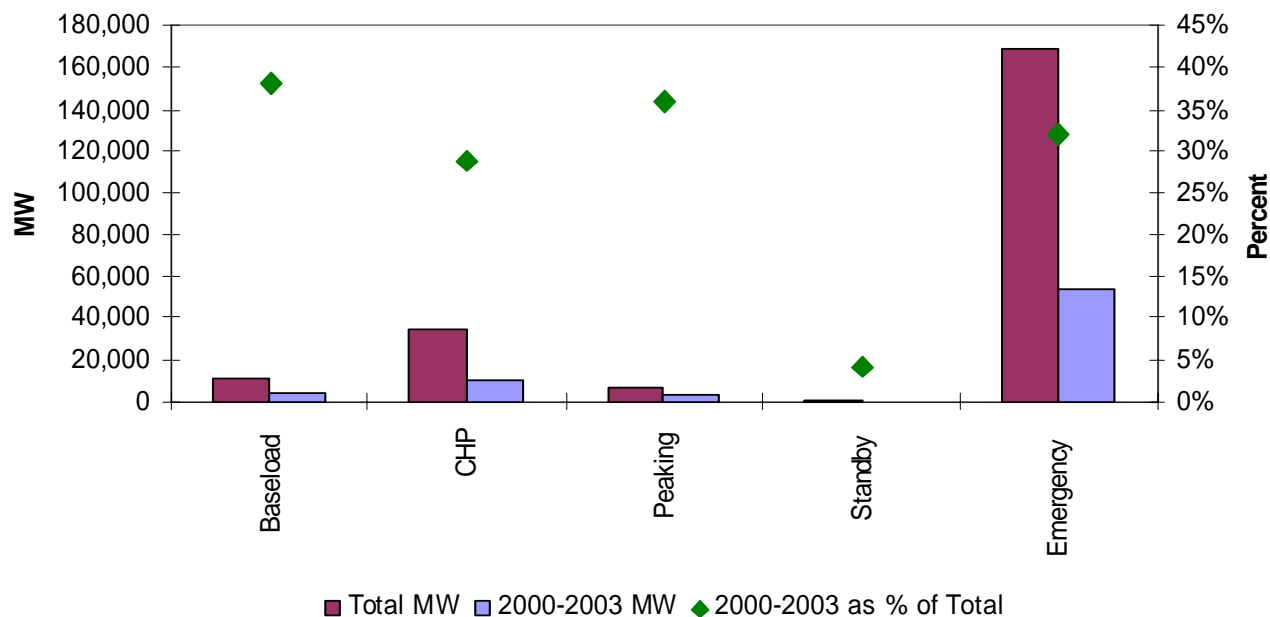
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New CHP Relative to Other Applications

2000-2003 vs. Total DG by Application and 2000-2003 as a Percent of Total



Source: Resource Dynamics Corporation, *The Installed Base of U. S. Distributed Generation*

The Installed Base of U.S. Distributed Generation



Recent Developments/Issues

- Many industrials in the South adopting electric boilers to take advantage of low off-peak rates vs. gas prices, removing steam load that could be served by CHP
- Renewable portfolio standards spurring alternative fueled DG projects, but mostly non-CHP applications
- In 2000-2002 many large CHP merchant plants went in, what will come of next central station cycle?