

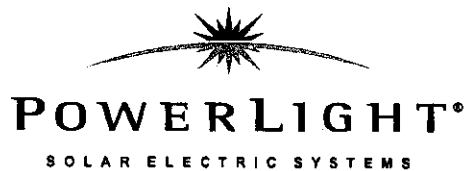
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April 30, 2003

**Comments Submitted to Nevada Senate Commerce and Labor Committee
by PowerLight Corporation in Support of AB 296**

Honorable Members of the Committee:

Thank you for the opportunity to present some information to the Committee in support of AB 296 and the technical amendment to AB 296.

My name is Gary Wayne and I am the Director of Strategic Programs for PowerLight Corporation who I represent today. PowerLight is one of the leading builders of grid connected solar electric systems. The Figures 1, 2 & 3 illustrate 3 of the more than 150 solar project we have built throughout the United States.

SB 372 established Nevada as the State with the most sweeping, effective and cost effective renewable energy program in the Nation. AB 296 and its technical amendment perfects that legislation by recognizing the important economic and security benefits of distributed solar systems without adding any cost to implementing the original bill.

Distributed Generation (DG)

It is widely acknowledged that adding distributed power systems to an existing electric grid has many benefits including reduced line losses and increased system capacity, reliability, performance and security. Five California and Arizona utilities found that the average benefit of five specific projects they built was greater than \$2,500 per kW (Figure 4). While well documented, the benefits of DG are not reflected in Nevada's current electricity rates, rules and regulations.

What's more, existing Nevada rules and practices provides an implicit subsidy of central facilities with respect to distributed ones. Using the Open Access Transmission Tariff (OATT), a central generating plant in the Nevada Power service area receives an annual transmission subsidy, relative to a distributed plant of over \$3 million per year (Figure 5). In a state where there is almost no DG, this accounting treatment has little effect. However, the failure to recognize distributed system benefits and the implicit subsidy of central systems presently makes it impossible for distributed solutions to compete on a level playing field with central plants. The 2.4 multiplier for distributed solar electric systems proposed in AB 296 and AB 429 rectifies this structural inequity.

DG Multiplier

The ratio of the cost of bulk electricity to bulk power than should provide a reasonable way to value distributed power:

[Delivered Electricity/Bulk Electricity = Cost of Delivery]

Figure 6 compares the cost of bulk electricity for Nevada Power Company commercial customers with delivered electric at peak times for three classes of commercial customers at peak time.¹ As you can see, each step in the delivery of the electricity adds cost. The ratio of delivered electricity to large commercial customers equals 2.4. For residential customers with time of day rates, this ratio is even higher.²

There are several pending federal and state bills that have considered for distributed solar generation. Pending federal legislation, HR 4, contains a 2.0 distributed benefit multiplier. Existing legislation in New Mexico and pending legislation in Colorado set the figure at 3.0. The proposed value of 2.4 conforms to the values contemplated by other jurisdictions.

No Additional Cost

A critical point is that while the 2.4 DG multiplier levels the playing field, it adds no additional cost to implementing Nevada's Renewable Portfolio Standard. This is because while it increases the fair price for DG systems by 2.4, it reduces the number of units of energy needed to satisfy the renewable energy portfolio standard by that exact multiplier!

Administrative Simplicity

The current rules promulgated to implement SB 372 included a multiplier for distributed generation of 10% to account for line losses. There, to implement the multiplier provision of AB 296 only requires amending the existing 1.1 multiplier to 2.4.

Conclusion

The 2.4 DG multiplier recognizes the important economic benefits and security benefits of distributed solar systems and the implicit transmission subsidies enjoyed by central plants relative to distributed systems and thereby also allows DG to compete fairly in the market. The 2.4 multiplier is fair and reasonable estimate based upon public data. The multiplier is either rate neutral or is likely to lower the cost of implementing the Renewable Portfolio Standard. Finally, the multiplier is trivial to implement and structurally consistent with existing rules and regulations.

With AB 296 and its Technical Amendment, we believe that Nevada's Renewable Portfolio Standard creates a national model for other jurisdictions to implement legislation in this important area.

Thank you for your support of clean and domestically produced energy.

¹ Since the bulk of solar projects are likely to be sited in southern Nevada, the Nevada Power Company electric rates provide the appropriate data. It is appropriate to use peak rates since the cost of the transmission and distribution system is driven by peak demands and because a large amount of solar electricity is generated coincident with peak loads.

² The ratio of delivered to bulk power for time of day residential customers is 2.8 ($.14316/.05051 = 2.83429$)

Yours truly,

A handwritten signature in black ink, appearing to read 'Gary Wayne', with a long horizontal flourish extending to the right.

Gary Wayne
Director Strategic Projects
PowerLight Corporation

Figure 1: Moscone Center

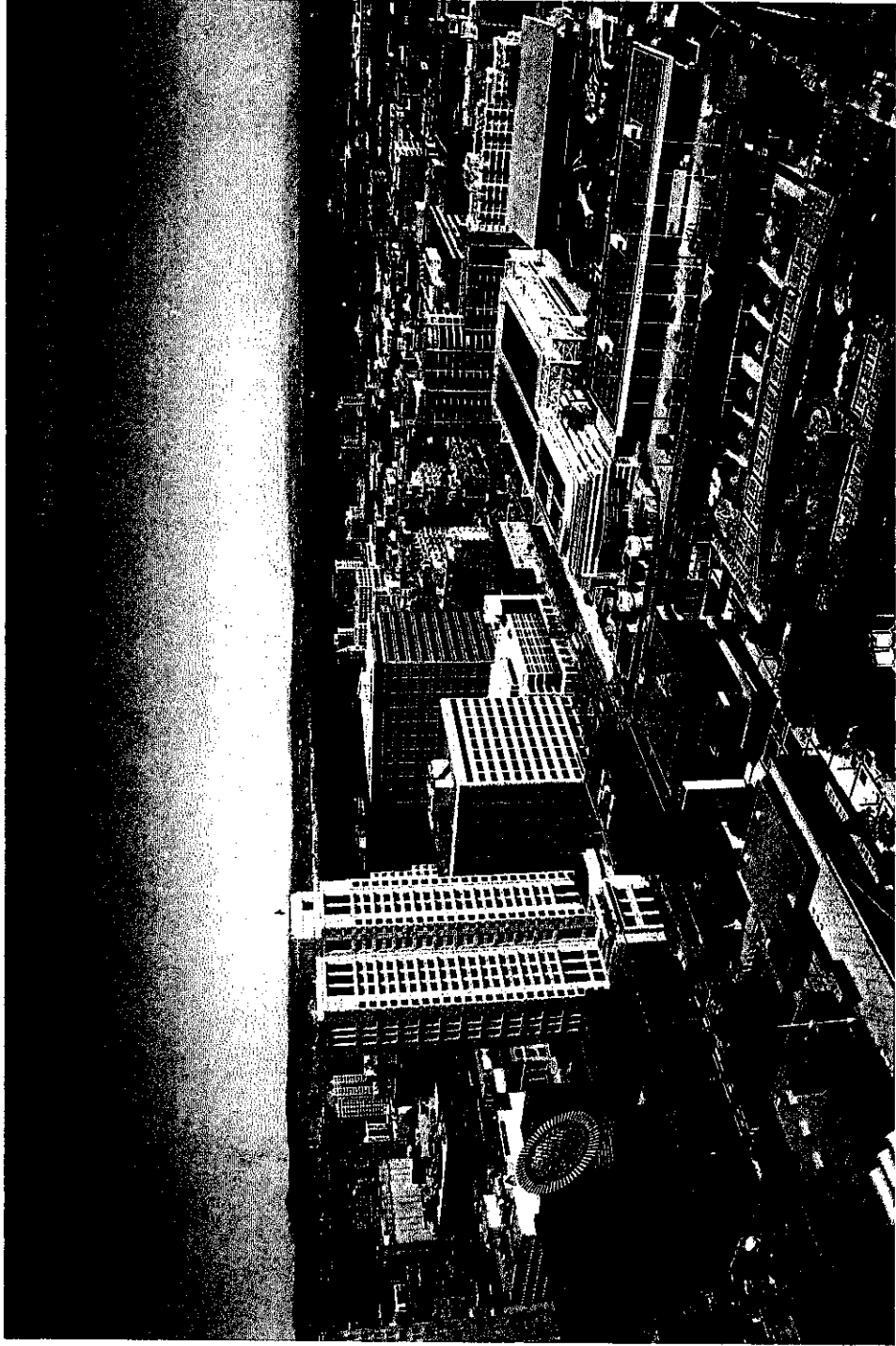


Figure 2: Santa Rita Jail



Figure 3: Cypress Semiconductor

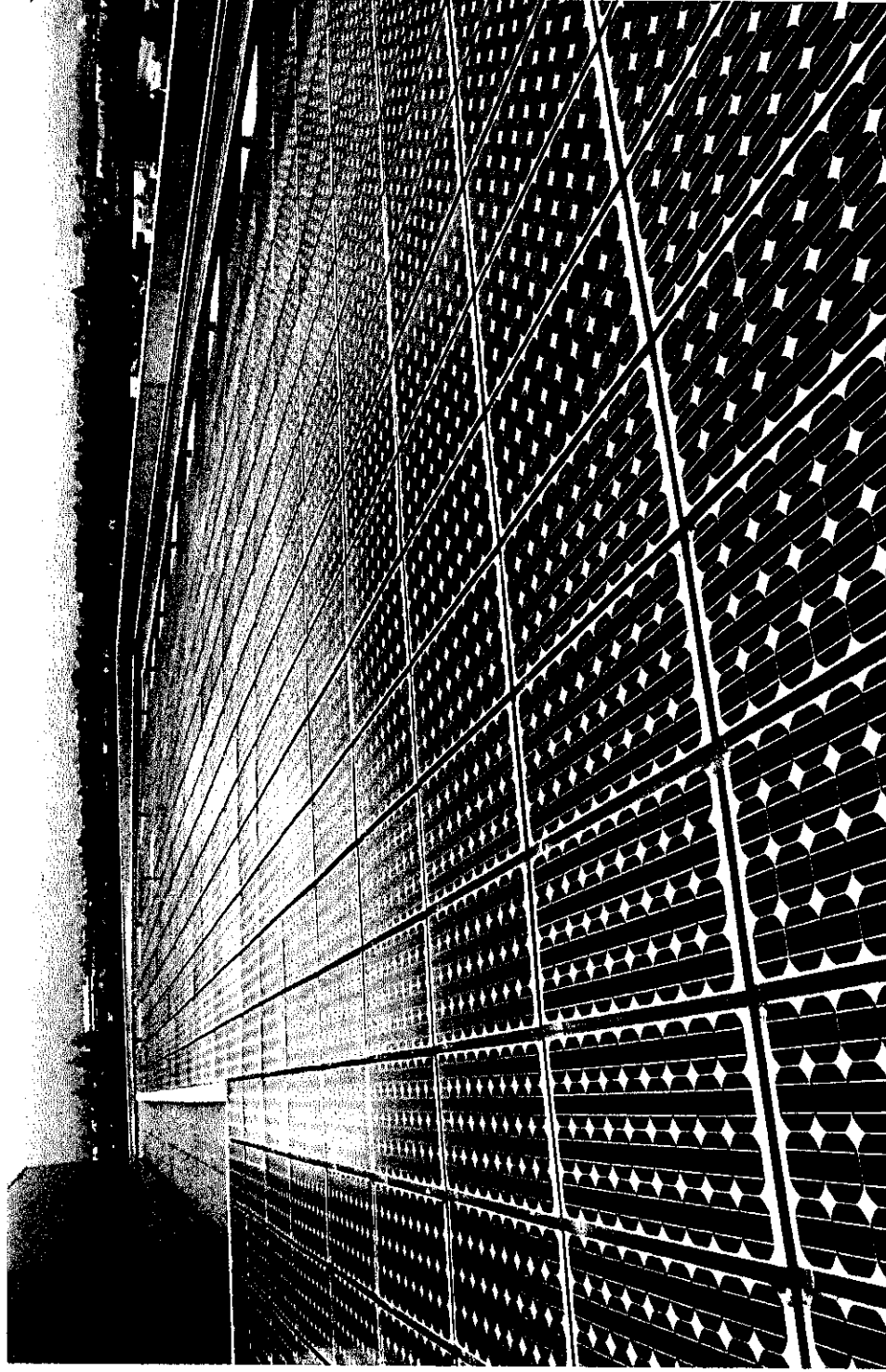
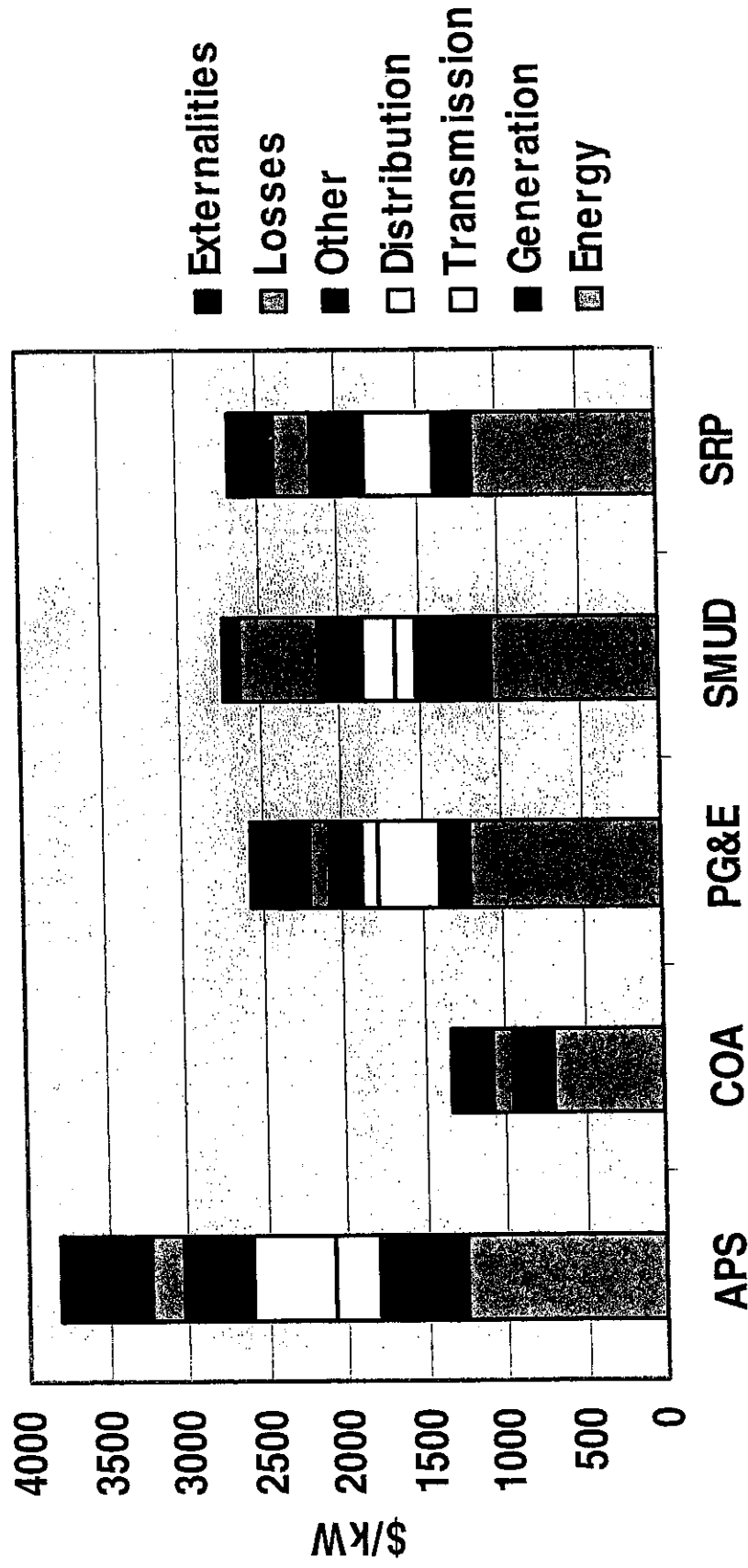


Figure 4: DG Benefit



Average benefit of \$2,500/kW

Figure 5: Central Station Transmission Subsidy



	SPPC	NPC
Schedule 1: Scheduling & Dispatch	144,000	51,600
Schedule 2: Reactive Supply & Voltage	60,000	
Schedule 3: Frequency	88,044	47,124
Schedule 5: Spinning Reserve	298,200	
Schedule 6: Supplemental Reserve	147,000	
Schedule 7: Spinning + Supplemental Reserve		244,080
Schedule 8a: Loss Compensation Capacity	187,294	40,978
Schedule 8b: Loss Compensation Energy	2,327,55	1,312,981
<u>Schedule 11: Non-Firm Operating Reserve</u>	<u>3,432,000</u>	<u>1,452,000</u>
Total	\$6,624,094	\$3,208,763

Figure 6: Rate Based Estimate of Distributed Benefit



<u>Service</u>	<u>Basic Tariff</u>			<u>Secondary</u>
	<u>Energy Rate</u>	<u>Transmission Voltage</u>	<u>Primary Voltage</u>	
LSG-X	\$0.052	\$0.065	\$0.083	\$0.123
LSG-3	\$0.052	\$0.075	\$0.111	\$0.124
LSG-2	\$0.052	\$0.080	\$0.116	\$0.125
				<u>Delivered Electricity/Bulk Electricity</u>
LSG-X				2.4
LSG-3				2.4
LSG-2				2.4



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April 30, 2003

Senator Randolph J. Townsend
Nevada State Senate
P.O. Box 20923
Reno, NV 89515-0923

Senator Townsend:

We are writing to you today to express support of AB 296 and the Technical Amendment to AB 296 that extends the 2.4 distributed benefit multiplier to distributed solar systems.

SB 372 that you sponsored established Nevada as the State with the most sweeping, effective and cost effective renewable energy program in the Nation. AB 296 and its technical amendment perfects that legislation by recognizing the important economic benefits of clean distributed solar systems without adding any cost to implementing the original bill.

This multiplier recognizes the important economic benefits of distributed solar systems (reduced line losses, increases in system reliability, performance, security and customer choice) that are not accounted for by the existing electric tariffs. It also levels the playing field for distributed systems to compete fairly with central generating systems that now enjoy a large explicit transmission subsidy. With AB 296 and its Technical Amendment, we believe that Nevada's Renewable Portfolio Standard creates model national legislation in this important area.

Thank you for your support of clean and domestic energy legislation.

Regards,

Gordon Handelsman
Sr. Director Sales & Marketing
Development
Shell Solar Industries

Janice Lin
Vice President of Business
PowerLight Corporation

ASTROPOWER

May 1, 2003

Senator Randolph J. Townsend
Nevada State Senate
P.O. Box 20923
Reno, NV 89515-0923

Subject: Support AB 296 with amendments

Dear Senator Townsend:

We are writing to inform you of our very strong support of AB 296 with the Technical Amendment to AB 296 that provides a 2.4 distributed benefit multiplier for distributed solar systems.

Thanks to SB 372, the groundbreaking legislation you sponsored, Nevada enjoys an excellent platform for increasing renewable energy development in the state and utilizing Nevada's robust solar resource. AB 296, with amendments, is a logical extension of SB 372 by explicitly recognizing and taking into account the various economic benefits of distributed and on-site power generation.

Distributed generation provides unique benefits over centralized power generation, including reduced line losses, increased system reliability, improved land utilization (siting systems on roofs or in parking lots as shade structures), increased security, peaking power at point of use, and customer choice. AB 296 with the 2.4 multiplier will become the nation's leading renewable energy portfolio standard and the model.

Thank you for your leadership in renewable energy development and for your support of AB 296 with Technical Amendment. Unfortunately we will not be at the hearing on May 2, but we hereby register our support of the testimony to be provided by Gary Wayne, Rose McKinney-James, and Jon Wellinghoff.

Sincerely,



Howard J. Wenger
Vice President, North American Business

Copy: Gary Wayne, PowerLight
Rose McKinney-James, Energy Works
Jon Wellinghoff, Beckley Singleton



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April 30, 2003

Senator Randolph J. Townsend
Nevada State Senate
P.O. Box 20923
Reno, NV 89515-0923

Senator Townsend:

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Thank you for your support of clean and domestic energy legislation.

Sincerely,

David Kaltsas
Marketing Manager
Broadband & Optical Device Division
Mitsui Comtek Corp.