

# Tax Implications of the CSI. Go Solar this Year!

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## I. INTRODUCTION

Environmental taxes are widely used in Europe and Australia to discourage certain practices that harm the environment. In the United States, the federal and state governments use tax policy to achieve environmental goals by encouraging the growth and use of non-fossil fuel based technologies (such as biomass, fuel cells, geothermal energy, wind, and solar thermal energy) through certain tax incentives.

California and the federal government have enacted tax and economic incentives for solar photovoltaic systems. New economic incentives, favorable tax treatment under state tax law, federal tax credits, and accelerated depreciation allowances are now available for photovoltaic systems ("PV"). This article focuses on the California Solar Initiative which became effective in January 2007.

## II. BACKGROUND

California state policy encourages the growth of alternative forms of energy. The state energy crisis in 2000 and 2001 accelerated public and legislative interest in decreasing reliance on fossil fuel technology. The state created a Renewable Portfolio Standard Program, with a goal of generating 33% of the state's energy from renewable energy technologies by 2020.<sup>2</sup> In September 2006, the state strengthened its commitment to clean energy sources by passing SB 1368, which directed the California Public Utility Commission ("CPUC") to establish a greenhouse gas emission performance standard on any load-serving entity engaged in a long-term financial contract with the state.<sup>3</sup>

California law encourages the use of photovoltaics. California Civil Code §714 prohibits homeowner associations from promulgating rules that unreasonably restrict the installation of solar energy systems. Other state laws support a taxpayer's right to sunlight.<sup>4</sup>

There are no current state tax credits available for solar energy.<sup>5</sup> However, state corporate and personal tax provisions allow the deduction of interest from a loan (made by a publicly owned utility, such as the Sacramento Municipal Utility District) to finance energy-efficient equipment.<sup>6</sup> Also, state taxpayers may exclude certain solar energy financial incentives from gross income for state tax purposes.<sup>7</sup> State tax law also provides that the value of a newly constructed, active solar energy system can be excluded from a taxpayer's state property taxes.<sup>8</sup>

The state's recently implemented California Solar Initiative ("CSI") is a 10-year economic incentive pro-

gram to encourage the use of solar energy technology, particularly photovoltaics.

## III. THE CALIFORNIA SOLAR INITIATIVE: SUBSIDIZED FINANCING?

SB1, the California Solar Initiative, was signed into law on August 21, 2006 and became effective on January 1, 2007.<sup>9</sup> The CSI was designed to work with existing state and federal solar energy tax incentives, in an effort to reach Governor Schwarzenegger's goal of "a million solar roofs" by 2017.<sup>10</sup> The CPUC finalized the rules for the CSI's implementation on December 19, 2006. The incentives available through this program will be greatest this year, and gradually decline over the next ten years.

The CSI provides a new economic incentive that complements the federal tax credits available for PV systems.<sup>11</sup> Taxpayers unable to obtain federal tax credit (such as non-profit or government agencies, for example) may be able to qualify for greater solar energy system incentives under the CSI. The CSI is not a tax benefit, but could limit the available tax credit depending on whether the taxpayer is claiming credit under 26 U.S.C.S. § 25D or § 48.

### A. Personal and Business Federal Tax Incentives for PV Systems

Many federal tax incentives encourage the installation and use of photovoltaic systems. Incentives are available to both personal and corporate taxpayers. For instance, corporate taxpayers generally take advantage of the accelerated cost recovery system ("ACRS"), which allows the taxpayer to deduct the cost of business equipment over a period of years while the equipment is in use. The ACRS classifies solar energy equipment as 5-year property that allows the taxpayer to deduct the total cost of PV equipment in five years,<sup>12</sup> which constitutes a substantial benefit because the equipment is expected to last 25 years. In addition, other federal tax incentives for utilities also encourage the use of PV systems.<sup>13</sup>

In 2006, Congress extended personal tax credits for solar energy to expire on December 31, 2008, codified in 26 U.S.C.S. §25D.<sup>14</sup> These tax credits were made available through the Energy Tax Incentives Act of 2005, which allowed 30% of expenditures for qualified PV property to be deducted from personal taxes as a tax credit, which can be carried forward if the taxpayer exceeds the maximum allowable tax credit of \$2000 for the year.<sup>15</sup>

On a taxpayer's personal taxes, if the installation of the PV system is part of a new construction or reconstruction of the structure, the expenditure is considered "made" when the installation is complete, regardless of whether it is in use or not, for the purposes of claiming the tax credit.<sup>16</sup> Otherwise, the expenditure is not considered "made," within the meaning of §25D, until the taxpayer has begun to use the structure.<sup>17</sup>

Taxpayers who install the PV system as part of their business can take a business credit (under 26 U.S.C.S. §38), which includes an investment credit (under 26 U.S.C.S. §46) for certain depreciable property. Section 46 tax credits are composed of four different tax credits, including an energy credit under 26 U.S.C.S. §48. Section 48 credits may only be taken by taxpayers who would be able to depreciate equipment used for business or for investment purposes. Under §48, if the photovoltaic system is subsidized through a "subsidized energy financing" program, the basis of the system must be reduced prior to taking the 30% tax credit for the system.<sup>18</sup> This business tax credit for solar energy systems expires on January 1, 2009.

The federal tax credit can be limited by the amount of financing received by the taxpayer, if the financing constitutes "subsidized energy financing," which is defined as financing under a federal, state, or local program, a principal purpose of which is to provide subsidized financing to projects designed to conserve or produce energy.<sup>19</sup> Funding for the CSI is not derived from general public funds, but from ratepayers of certain utilities; thus, it essentially constitutes a rebate program.<sup>20</sup>

The legislative history of the residential energy tax credit indicates that rebate programs such as the CSI are not considered subsidized energy financing.<sup>21</sup> Section 25D of the tax code does not limit the amount of credit on such a basis, even if the PV system was purchased with subsidized energy financing. Therefore, residential taxpayers can take full advantage of benefits under both the CSI and §25D.

However, taxpayers claiming a federal tax credit under §48 may have their tax credit limited by any rebate they receive from the CSI program. In 1982, the IRS proposed regulations that indicated loan guarantees, credits against state and local income taxes, price guarantees, purchase commitments, non-taxable and taxable grants would not constitute subsidized energy financing within the meaning of §48.<sup>22</sup> However, no specific IRS regulations or case law address whether funds received as a rebate through a governmental agency would limit the tax credit under §48.<sup>23</sup> Several IRS private letter rulings indicate that if the taxpayer received public agency loans from a non-subsidized source, such funds would not constitute subsidized energy financing within the meaning of §48.<sup>24</sup> Loan guarantees and certain agency grants were also determined to not constitute subsidized energy financing in a private letter ruling.<sup>25</sup> However, private letter rulings are only binding on the parties requesting the ruling,

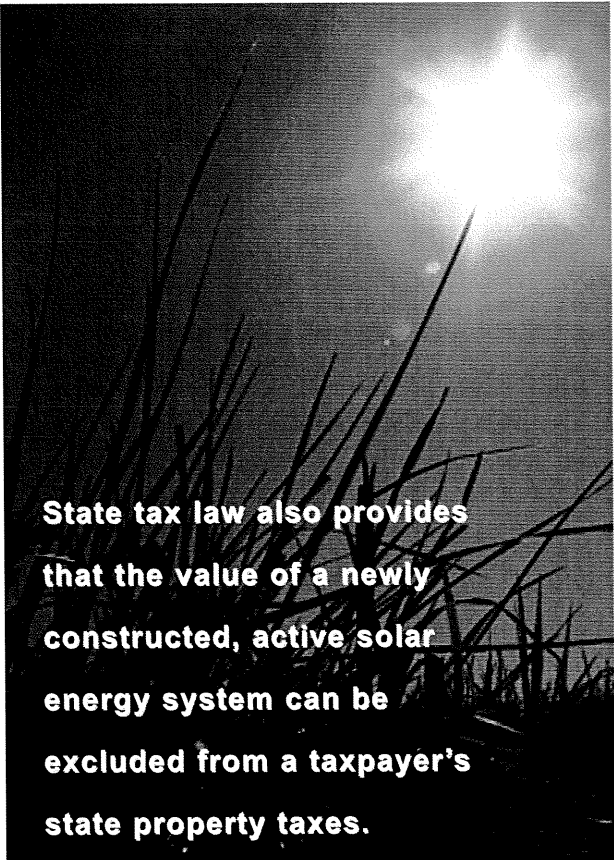
and are not necessarily applicable to other situations. Thus, for the purposes of the business energy tax credit, it is unclear whether the CSI will limit the amount of §48 credit available to the taxpayer.

#### **B. The CSI may reduce federal tax credits for certain entities**

To qualify for the financial incentives through the CSI, the entity must be an *electric* customer of Pacific Gas & Electric, Southern California Edison, or San Diego Gas & Electric.<sup>26</sup> Customers who receive gas service only are not eligible.

The incentives available through the CSI are highest in the beginning of the program, with the amount of the incentive decreasing as the number and size of PV systems installed increases in each utility's territory. This structure rewards those who enter the solar market earlier. The CSI is structured to have ten levels of decreasing incentives. Thus, the actual amount of the incentive can vary, and the three utilities could pay different incentive amounts at any particular time.

There are two incentive structures available: (1) the Performance Based Incentive ("PBI") and (2) the Expected Performance Based Buydown ("EPBB"). Systems that are 100 kilowatts ("kW") or larger are required to participate in the PBI, while smaller PV systems can opt for either incentive. Payments under the PBI are based on actual kW hours produced over a five year term and are paid monthly. The EPBB incentive will



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pay a single lump sum per watt of solar energy, based on an estimate of the system's future performance.

The rules for the CSI were determined by the CPUC and the California Energy Commission ("CEC"). The CEC provided guidelines for new housing developers, while the CPUC created the CSI rules governing governmental agencies, schools, agricultural facilities, industrial entities, non-profit organizations, and residential taxpayers.<sup>27</sup> Not all of these entities will be able to take advantage of the federal tax credits available for solar energy, and the tax credits for some likely will be reduced if they participate in the CSI.

#### **i. Incentives for individual residential and non-residential customers**

For residential and commercial taxpayers, the CSI provides a \$2.50 per watt incentive base under the EPBB incentive structure, which is scheduled to decline to \$2.20/watt in the following step. If the taxpayer chooses the PBI incentive structure, the CSI provides for a \$0.39 per kilowatt-hour ("kWh") payment in the first step of the program, which is scheduled to decline to \$0.34/kWh in the following step. The CSI incentive structure is lower for these taxpayers than for government and non-profit taxpayers, because these taxpayers may qualify for the 30% federal tax credit for PV systems under §48 or §25D.

Hypothetically, if a residential taxpayer were to install a qualifying 4kW system this tax year, at a cost of \$29,000, that taxpayer may be able to obtain an \$8,500 rebate under the CSI.<sup>28</sup> The rebate is not considered income and its value can be excluded from the taxpayer's state income taxes. In this example, the residential taxpayer will be able to benefit from a 30% federal tax credit of \$8,700 pursuant to §25D (with a maximum of \$2,000 which can be deducted this year).<sup>29</sup> This credit can be carried forward into the next tax year, for a total of \$4,000 in tax credits in two years, with the carry forward credit subject to limitation under 26 U.S.C.S. § 26(a), in this example. If the residential taxpayer were to wait to invest in a qualifying PV system when the CSI was paying at the next lower step, the CSI rebate would be \$7,480,<sup>30</sup> and the 30% residential tax credit would still be available (but will expire by 2009).

However, for the same system, a commercial taxpayer who takes advantage of the rebate program available through the CSI may have to limit the amount of tax credit available under §48 if the CSI is construed to be "subsidized energy financing." A commercial taxpayer who installs the same qualifying 4kW system this tax year, at a cost of \$29,000, may qualify for the same amount of rebate of \$8,500 from the CSI,<sup>31</sup> but then may need to take this rebate into account prior to taking the 30% tax credit for the PV system.<sup>32</sup> The commercial taxpayer need not include the rebate as income for state income tax purposes.<sup>33</sup> Thus, the basis for the purposes of this tax credit would be reduced<sup>34</sup> to \$20,500, with the available tax credit reduced to \$6,130.

However, the CSI may not constitute "subsidized energy financing" for purposes of §48. If it did not, then the taxpayer would not need to limit the federal tax credit; in the example above, the full \$8,700 tax credit could be claimed.

Unlike the residential taxpayer, the commercial taxpayer would be able to use the ACRS and deduct the PV system's basis over a 5-year period.<sup>35</sup>

#### **ii. Incentives for new residential solar home builders**

One of the goals of the CSI is to place PV systems on 50% of new homes in 13 years.<sup>36</sup> The CSI rebate will lower the cost of the PV system to the builder and allow the builder to attract buyers who wish to save money on their energy bills. The CEC oversees the administration of the CSI for new residential solar homes. The actual incentive paid per watt of energy is determined by the Expected Performance-Based Incentive ("EPBI") calculation.<sup>37</sup> Builders can estimate the amount of rebate their development could qualify for by using the CEC's rebate calculator.<sup>38</sup> The CSI incentive is paid to the developer once the system is installed, operational and has met all program requirements.<sup>39</sup> (This differs slightly from the federal tax incentives for PV systems, as the tax credit for such a system may be taken at the time the system is in use.<sup>40</sup>)

Custom homes or production housing may qualify for the CSI as administered by the CEC.<sup>41</sup> Developers of mixed use buildings with both commercial and residential occupancies will need to consult the CSI as administered by the CPUC to determine if they qualify for the incentive.<sup>42</sup> Qualifying residential units<sup>43</sup> with PV systems will initially benefit from a \$2.60/watt incentive, scheduled to be reduced to \$2.35/watt when the utility reaches the next incentive step.<sup>44</sup>

The CSI incentive will be paid to the developer of such housing. The new housing developer may be able to claim a federal tax credit under the new energy-efficient home credit, codified in §45L, if the home qualifies as an energy-efficient home. No language regarding subsidized energy financing limits the amount of tax credit available under §45L. This tax credit expires on December 31, 2008.<sup>45</sup>

#### **iii. Incentives for government and non-profit entities**

The CSI incentives are increased if federal tax incentives for the solar installer are not available. Because government and non-profit organizations do not qualify for either §25D or §48 energy tax credits, the CSI was structured to provide greater incentives to government and non-profit organizations to compensate for the lack of a federal tax incentive.<sup>46</sup>

As previously noted, the CSI offers two different incentive structures: a one time payment under the EPBB or a monthly payment under the PBI, depending

on the size of the PV system. In the first incentive step of the program, the CSI will pay \$3.25/watt of solar energy to qualifying government and non-profit taxpayers, under the EPBB incentive structure. The incentive is scheduled to decline to \$2.95/watt in the next incentive step. If the taxpayer instead chooses the PBI incentive structure, government and non-profit taxpayers may benefit from \$0.50 per kWh in the CSI's first incentive step. After this, the PBI incentive is scheduled to decline to \$0.46/ kWh in the next incentive step.

For example, if a government agency decides to install a 50kW qualifying PV system, whose average cost is \$450,000, that agency may obtain a rebate of \$138,125 from the CSI under the EPBB incentive.<sup>47</sup> If the agency waits until the CSI reaches the next step, the rebate will be reduced to \$125,375.

In the alternative, the agency may have the resources to invest in a larger system and then participate in the PBI incentive structure. If the agency decided to install a 100kW qualifying system for \$900,000, the system could produce about 200,000 kWh a year. This level of performance over the system's initial 5-year period would earn \$100,000 in CSI rebates.<sup>48</sup>

For these entities, the federal tax credits under §§25D and 48 are inapplicable.

#### C. Financial incentives available through local utility companies

Many local utilities have photovoltaic incentive programs, independent of the CSI.<sup>49</sup> Some utilities offer substantial rebates, such as the Burbank Water & Power program, which offers up to \$10,000 for residents and \$25,000 for commercial customers. These incentives may reduce the financial incentives available through the CSI, which in turn may impact available federal tax credits if they constitute a "subsidized energy financing program."

#### IV. Conclusion

Solar energy is actively encouraged under state policy, and the state legislature continues to propose bills to strengthen the state's renewable energy policy. There are many reasons to switch to solar energy, including: reducing carbon dioxide emissions that contribute to global climate change, reducing dependence on imported oil, reducing air pollutants generated from conventional power sources, reducing energy demand, and providing for additional electricity for the grid when energy production from the solar panel exceeds energy use. The financial incentives provided by state and federal law are yet another reason to make the switch to solar energy in the near future. The incentives available through the California Solar Initiative will be greatest this year and gradually decline over the next ten years. Now is the right time to consider photovoltaics for your client's or your own home or business to take advantage of these financial incentives while they are greatest.

#### ENDNOTES

1. Kim Chew is a 2007 J.D. graduate of Golden Gate University School of Law in San Francisco, California. She can be reached at [mskimchew@gmail.com](mailto:mskimchew@gmail.com) or 925-209-5347. She would like to thank Kimberly Stanley, Professor of Law & Dean of GGU's Tax Law Program for her guidance in preparation of this article, and thank Cliff Rechtschaffen and Alan Ramo, Professors of Law and Co-Directors of GGU's Environmental Law & Justice Clinic, Kristien Chew of the California Energy Commission, and Administrative Law Judge Dorothy Duda of the California Public Utility Commission for their specific guidance on renewable energy policy, photovoltaic systems, and the CSI.
2. California Public Resources Code Section 25305.2.
3. Cal Pub Util Code §§ 8340, 8341. This legislation particularly affects out-of-state coal-fired power plants, which are frequently cited as "dirty sources" of power, because they typically emit nitrogen oxides and sulfur dioxides in addition to greenhouse gases.
4. Cal Gov Code § 66475.3.
5. Cal Rev & Tax Code § 17053.84 and § 23684 were repealed in 2006.
6. Cal Rev & Tax §17208.1.
7. Under Cal Rev & Tax §17138.1, solar energy financial incentives issued by the CPUC or the CEC or a local, publicly owned electric utility company are not included as gross income for state tax purposes. The same state tax incentive is available for corporate taxpayers who take advantage of the CSI. The CPUC has ruled that the CSI rebate is not income for the purposes of federal income tax as well. CPUC Decision 06-08-028, August 24, 2006, conclusion of law #35.
8. Cal Rev & Tax § 73.
9. California Solar Initiative Program Final Handbook April 2007.
10. Governor Schwarzenegger's Million Homes Solar Plan was signed on August 20, 2004. See <http://www.gosolarcalifornia.ca.gov>.
11. Public Resources Code §§25751 & 25744.
12. IRC §168(e)(3)(B)(vi).
13. Renewable electricity production credit IRC §45, enacted in 1992 with P.L. 102-486, the Energy Policy Act of 1992.
14. P.L. 109-432. Prior to the amendment, the credit was slated to sunset December 31, 2007. Legislation to extend this credit to December 31, 2016 has been proposed (the Securing America's Energy Independence Act of 2007).
15. IRC §§25D(c), 25D(b)(1)(A). Carryforward credit is subject to limitation under 26 USCS § 26(a).
16. IRC §25D(e)(8)(A).

17. IRC §25D(e)(8)(B).
18. IRC § 48 (4)(A)(i) & (4)(B). The property up to the stage that transmits or uses energy is included as part of the property, for purposes of this tax credit (26 CFR 1.48-9(d)(3)). Solar energy property includes storage devices, power conditioning equipment, transfer equipment, any pipes or ducts used exclusively to carry the energy, and parts related to the function of those systems (26 CFR 1.48-9 (d)(3) & (d)(4)).
19. 26 C.F.R. 1.23-2(i) and IRC § 48(a)(4)(C).
20. The CSI is funded by the "public goods charge" to electrical customers of Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric.
21. Senate Report No. 96-824, 96th Cong., 2d Sess. 294 (1980), 1980-2 C.B. 430.
22. 1982-1 C.B. 526.
23. 26 C.F.R. 1.48-9(o) marked as "reserved." Subsidized energy financing was not discussed.
24. The IRS found that the government agency's loan did not constitute "subsidized energy financing" because the funds were from a nonsubsidized source. PLR 8530004 (April 30, 1985) and PLR 8432072 (May 8, 1984).
25. PLR 200318066 (January 29, 2003) and PLR 200206034 (November 8, 2001).
26. Other requirements must also be met, such as system size, metering requirements, system inspection requirements, and insurance requirements, as outlined in the California Solar Initiative Handbook.
27. Actual administration of the CSI is delegated to other entities. See the California Solar Initiative Final Handbook, April 2007 for more information.
28. Calculation for rebate assumes the following parameters: administering utility is in its first tier in the CSI program, the PV system is located in San Francisco, with a tilt of 15 degrees, a southeast azimuth, 5% shading and an annual output of 1,454 kW-ac CEC.
29. All estimates of actual tax liability are provided for illustrative purposes only. Amount of CSI rebate will vary depending on which level of incentive the administering utility is on, which is dependent on the number and size of PV systems that have already been installed.
30. This calculation assumes that the CSI is at the second tier in the EPBB incentive.
31. The same parameters were assumed for this hypothetical situation as contemplated in footnote 28.
32. It is unclear whether a rebate program would constitute a "subsidized energy program" for the purposes of IRC §48(a)(4)(B).
33. Cal Rev & Tax §24308.1.
34. See IRC §48(a)(4)(B).
35. IRC §168(e)(3)(B)(vi).
36. New Solar Homes Partnership: Final Guidebook, CEC-300-2006-017-CMF, December 2006, p. 1.
37. All requirements for new homes are outlined in the Guidebook available on the CEC website. Taxpayers who wish to take advantage of this program must go through a reservation process as explained in the Guidebook, page 18.
38. PV calculator available on <http://www.gosolarcalifornia.ca.gov/nshpcalculator/index.html>.
39. There are numerous other requirements. For example, the PV system must be on a separate meter to measure solar output, and the system must have at least a minimum 10-year warranty.
40. IRC §25D(e)(8)(B).
41. The actual incentive depends on the particular system's estimated performance, based on the EPBI calculation. The EPBI calculation takes various factors, such as the system's location, tilt, and shading, into account.
42. Developers of mixed use properties should consult the CPUC to determine if they qualify for the CSI incentive.
43. Applies to residential developments of 6 or more dwelling units in which 50% of dwelling units have solar systems meeting the California Flexible Installation Criteria.
44. The incentives are scheduled to decline depending on the number and size of installed PV systems (New Solar Homes Partnership: Final Guidebook, CEC-300-2006-017-CMF, December 2006, p. 15).
45. IRC § 45L(g).
46. The entity must certify that it will not enter into any financial arrangements that would qualify it for federal solar tax credits in order to qualify for the higher CSI rate.
47. Calculation for rebate assumes the following parameters: that the CSI program is in its first incentive tier, that the PV system is located in San Francisco, with a tilt of 15 degrees, a southeast azimuth, 5% shading, where the design factor is 85%. Systems with better expected performance will earn a larger CSI rebate.
48. Rebate rate subject to change, dependent on number and size of PV systems previously installed in the utility's territory, and the system's actual performance.
49. Such utilities include: Sacramento Municipal Utility District, Los Angeles Dept Water & Power, City of Palo Alto Utility, Silicon Valley Power, Pasadena Water & Power, Burbank Water & Power, Anaheim Public Utilities, Redding Electric Utility, Glendale Water & Power, Turlock Irrigation District, Imperial Irrigation District, Colton Public Utilities, Hercules Municipal Utility, Marin County, Riverside Public Utilities, Roseville Electric, and Ukiah Utilities. The availability of incentives through these utilities may change.