

HEARING OFFICER’S REPORT
1.5% FOR SOLAR IN PUBLIC BUILDINGS

Oregon Administrative Rules
Chapter 330, Division 135, Sections 0010-0100
December 20, 2007

Procedural Background

1
2 The Secretary of State published a notice of this proceeding on November 1, 2007 in the
3 Secretary of State’s Bulletin.

4
5 The Department held workshops with various interest groups as follows: schools and local
6 governments in the morning of September 19, universities, community colleges and state
7 agencies in the afternoon of September 19, solar energy equipment providers and installers
8 in the morning of October 9, and the design community (architects and engineers) in the
9 afternoon of October 9. Notices of the workshops were mailed and e-mailed to lists
10 representatives from the above-mentioned groups maintained by various department
11 programs, and were posted on the front page of ODOE’s web site. Comments received
12 from the workshops were incorporated into the draft rules and are not summarized here.

13
14 A summary of the proposed rules was available in mid-September before the first
15 workshops were held. Draft rules were posted on ODOE’s web site November 1. A revised
16 draft based was made available November 27. The November 27, 2007 version of the
17 draft rules formed the basis for the public hearing, which was held on December 4, 2007.
18 The public comment period closed at 5:00PM on December 5, 2007. All changes
19 recommended in this report are to the November 27, 2007 version of the proposed rules.

Issues Addressed

20
21
22 The Department identified the fooling issues for consideration in its notice of proposed
23 rulemaking and initial draft rules:

- 24 • Establish rules for determining the dollar amount that is equivalent to 1.5% of the
25 public improvement contract that must be spent on solar energy technology in the
26 public building.
- 27 • Establish technical criteria for appropriate solar energy technology.
- 28 • Define equipment and other costs eligible to be included in determining whether
29 1.5% of the public improvement contract has been spent on solar energy
30 technology
- 31 • Establish rules for deferral of unspent funds to future building projects.
- 32 • Establish rules for alternative financing of solar energy systems, such as a lease-
33 purchase agreement, power purchase agreement or energy savings performance
34 contract, to ensure that an amount equal to at least 1.5% of the public improvement
35 contract has been spent on solar energy technology.

- 1 • Establish rules for agencies to determine whether inclusion of solar energy
- 2 technology in an eligible public building project is inappropriate.
- 3 • Establish procedures for agencies to report compliance with the provisions of the
- 4 bill and these administrative rules.

6 **Comments Received**

7 Oral comment was received at the public hearing from:

- 8 • Laurie Adams, Springfield Public Schools
- 9 • Nancy Bigley, Springfield Public Schools
- 10 • Jeff Bissonnette, Fair & Clean Energy Coalition
- 11 • John DeFranco, Springfield Public Schools
- 12 • Joshua Dodson, Team-Build, LLC
- 13 • John Hartsock, Beaverton School District
- 14 • Bill Hirsh, Springfield Public Schools
- 15 • Jeff Madsen, Oregon University System
- 16 • Jerry Milstead, Milstead & Associates
- 17 • Rob Ruedy, Energy Transition Corporation
- 18 • Elin Shepard, Oregon Department of Administrative Services
- 19 • Bob Simonton, Oregon University System
- 20 • Dave Tooze, Portland Office of Sustainable Development
- 21 • Jerry Vessello, Chemeketa Community College
- 22 • David Williams, Oregon School Board Association
- 23 • Doug Young, Oregon Department of Corrections

24
25 Written comments were received from:

- 26 • C.Z. Brown, Energy Studies in Buildings Laboratory
- 27 • Ben Brantley, Eugene School District 4J
- 28 • Kacia Brockman, Energy Trust of Oregon
- 29 • Mark Denyer, MFIA, Inc.
- 30 • Catherine Diviney, Portland Public Schools
- 31 • Joshua Dodson, Team Build, on behalf of Oregon Coast Community College
- 32 • Fritz Feiten, Honeywell Energy Solutions x3
- 33 • David Furr, Salem/Keizer Public Schools
- 34 • Wayne Graham, Oregon Military Department x3
- 35 • Brent Gunderson, Gen-Con, Inc.
- 36 • Allison Hamilton, Oregon Department of Transportation
- 37 • John Hartsock, Beaverton School District x3
- 38 • Joe Henri, SunEdison/Solar Alliance
- 39 • Paul Holvey, Oregon State Representative District 8
- 40 • Stanley Hutchison, Oregon Military Department
- 41 • Jim Krumsick, Balzhiser & Hubbard Engineers
- 42 • Jeff Madsen, Energy Project Manager, University of Oregon
- 43 • R.J. McEwen, Portland Community College

- 1 • Scott Miller, MFIA, Inc.
- 2 • Jerry Milstead, Milstead & Associates
- 3 • Kay Moxness, Central Lincoln People’s Utility District
- 4 • Dale Northcutt, Energy Studies in Buildings Laboratory
- 5 • Elin Shepard, Oregon Department of Administrative Services
- 6 • Springfield Public Schools – School Board Members
- 7 • Susan Ross, Deschutes County
- 8 • Richard Ross, Oregon Department of Human Services
- 9 • Robert Ruedy, Energy Transition Corporation x2
- 10 • Dave Tooze, Portland Office of Sustainable Development x3
- 11 • Frank Vignola, University of Oregon x3

14 **Issues, Discussion, and Recommendations**

15 **330-135-0010 PURPOSE**

16 ***Issue 1: Clarify that 1.5% is the minimum that may be spent***

17 Comment(s): Frank Vignola from the University of Oregon Physics Dept. commented
 18 that the rules should clearly state that 1.5% is the minimum amount that could be spent.
 19 There are lease back and other financing arrangements that can result in systems that
 20 cost more than that minimum.

21
 22 Discussion: The authorizing statute and the first section of the rules state that the public
 23 bodies must spend an amount equal to “at least 1.5 percent of the total contract price”
 24 on solar energy technology.

25
 26 Recommendation: No change to the proposed rule language is needed .
 27

28 ***Issue 2: The 1.5% solar mandate conflicts with more cost-effective energy efficiency***

29 Comment(s): David Furr from Salem-Keizer Public Schools commented that requiring
 30 agencies to spend 1.5% of a public improvement contract on solar technology could
 31 come at the expense a better thermal envelope, more robust HVAC control strategy, or
 32 integrated design. It leaves more critical aspects of the project increasingly vulnerable
 33 to being “value engineered” out of the project as building costs escalate. One could
 34 speculate on instances where occupant comfort or the building’s capacity to optimally
 35 serve its purpose could be compromised for the sake of a symbolic display on its roof.
 36 As a partial solution, he suggested that any investment in excess of the 1.5% for a
 37 given project be credited toward satisfying the requirement of any future eligible
 38 project.

39
 40 Discussion: Staff concurs that the cost of including 1.5% of the construction contract
 41 for solar technology could reduce the amount available for other energy efficiency
 42 measures. However, under the State Energy Efficient Design (SEED) program, state
 43 agencies and universities must reduce energy use 20% beyond code or implement all
 44 cost-effective energy efficiency, whichever is greater, in all new construction or major

1 renovation projects. In addition, the state provides incentives and assistance to schools
2 and local governments to design to sustainability standards, including energy efficiency
3 beyond code. If experience shows that the requirements of HB2620 are resulting in less
4 efficient buildings, ODOE will include this information in its report to the Legislature
5 and suggest modifications to the requirement.

6
7 Recommendation: No change to the proposed rule language is needed.

8
9 **330-135-0020 ELIGIBLE BUILDING PROJECTS**

10 ***Issue 3: Waive projects financed before adoption of HB 2620 and these rules***

11 Comment(s): Several comments recommended that the 1.5% for solar energy
12 requirement should be waived for projects for which bonds have been issued or that are
13 under design before the effective date of the law. Two comments said they should not
14 be waived.

15
16 Jeff Madsen, University of Oregon, was concerned that buildings which obtained
17 financing before the law and rules were adopted didn't anticipate this expenditure but
18 would still be required to comply. Allison Hamilton from the Oregon Department of
19 Transportation commented that capital improvement and capital construction
20 budgeting began in 2005 on budgets submitted for the 2007 Legislative Session, and
21 that the rules should focus on incorporating the requirement that 1.5% of the contract
22 price be spent on solar energy technology in the planning process for 2009-2011
23 budget development.

24
25 Dave Tooze , Portland Office of Sustainable Development, commented that the rules
26 should not apply if the public building's funding was secured and the construction
27 budget established prior to January 1, 2008. Joshua Dodson from Team-Build Project
28 Management on behalf of the Oregon Coast Community College had several questions
29 asking clarification concerning projects already funded and budgeted. Scott Miller
30 from MFIA Consulting Engineers said that six months from passage of the bill to the
31 proposed effective date does not provide sufficient time for an integrated design
32 approach, and suggested the law not be enforced before June 1, 2008.

33
34 John Hartsock from the Beaverton School District suggested that public projects
35 included in voter approved bond measures prior to the effective date of this law should
36 be excluded from application of the requirement if applications for building permits are
37 made by December 31, 2009. The Springfield School Board recommends that the
38 proposed rules not apply to projects for which design began before the rule was put
39 into effect, and/or to projects for which funding was secured before passage of the bill.
40 Richard Ross, Oregon Department of Human Services, commented that eligible
41 building projects should be limited to projects that have received legislative funding
42 approval prior to the effective date of the law. David Williams, Oregon School Boards
43 Association, said the bill refers to advertised date, which is a lower threshold than date
44 of permitting.

1 Conversely, Jim Krumsick from Balzhiser & Hubbard Engineers commented that
2 projects for which the design team has not been selected are very fluid and can be
3 designed to accommodate solar without increasing the construction cost, and that the
4 agency still has time to find a private developer who could benefit from tax incentives
5 to help make the project more affordable. He suggested providing agencies which have
6 already had funding approved an choice of allocating 0.5% of the construction costs to
7 solar, or partnering with a private solar developer on the installation of a system valued
8 at 1.5% of the building cost.

9
10 Rep. Paul Holvey, sponsor of HB 2620 and Jeff Bissonnette, Fair and Clean Energy
11 Coalition, said the rules should apply to public improvement contracts for the
12 construction of public buildings that are first advertised for bid on or after the effective
13 date of January 1, 2008, and not according to issuance of the building permit. The
14 Department should consider the bonding and design of a project before the effective
15 date as a reason for the contracting agency to determine the use of solar technology to
16 be inappropriate.

17
18 Discussion: The legislation states that it “applies only to public improvement contracts
19 first advertised, but if not advertised then entered into, on or after the effective date of
20 this 2007 Act.” The Department understands that many public bodies obtained funding
21 for building projects before enactment of this legislation, and including 1.5% of the
22 contract price for solar technology was not anticipated in development of the funding
23 request. In some cases design may have already begun, in some cases including 1.5%
24 for solar may stress the budget for other purposes, while in other cases it may be
25 possible to include solar without significantly affecting those other purposes.

26
27 We think that an exception to the solar energy requirement for state agencies is not
28 justified. Agencies must request funding from the legislature. The legislature passed a
29 capital construction budget for building projects at approximately the same time this
30 bill was passed, and many of those projects will not be advertised before the statute and
31 these rules take effect. The legislature could have exempted those capital projects from
32 this requirement, but did not. If state agencies are unable to include 1.5% for solar
33 technology in those projects without fundamentally changing the purpose of the public
34 building project, they can either request a waiver of the requirement from the
35 legislature or request additional funding. Alternatively, state agencies may request a
36 recommendation from the technical review panel that a project as inappropriate for
37 solar technology, or that the amount dedicated to installing solar energy technology
38 may be reduced, if it would unreasonably restrict completion of the project for other
39 essential uses.

40
41 In contrast, school and local government capital construction projects are typically
42 funded by voter-approved bonds. The legislature does not have the authority to review
43 or increase the funding in response to the requirements of this bill, as they have with
44 state-funded buildings. Also, it is unreasonable to expect schools and local
45 governments will amend project budgets and re-submit the bond issue to voters to
46 include 1.5% for solar technology. Thus we adopt the suggestion to except projects

1 funded by voter-approved bonds before the effective date of HB 2620 as inappropriate
2 for installation of solar energy technology under the statute, including the requirement
3 of a sunset date for this exception. This conclusion is consistent with the the statutory
4 exemption from the requirement to defer funds to a future building project for projects
5 that are not funded by state funds and that are determined to be inappropriate for solar
6 technology.

7
8 Recommendation: (a) Revise the rule language to reinstate reference to public
9 improvement contracts for the construction of public buildings that are first advertised
10 for bid on or after the effective date of January 1, 2008, and delete reference to
11 issuance of the building permit. (b) Revise the rule language to except public projects
12 funded by in voter approved bond measures prior to the effective date of this law from
13 the requirement to install solar energy technology pursuant to HB 2620 if applications
14 for building permits are made by December 31, 2009.

15
16 ***Issue 4: Clarify eligibility limits for renovations***

17 Comment(s): John Hartsock, Beaverton School District, and Joshua Dodson, Team-
18 Build Project Management on behalf of the Oregon Coast Community College,
19 requested clarification whether the project must have both a value of \$1,000,000 and
20 costs in excess of 50% of the insured value of the building to be eligible under the
21 statute. For example, a renovation project valued at \$5 million on a building with an
22 insured value of \$20 million would not be required to include the 1.5% for solar, but a
23 the project on the same building a valued at \$10,000,00 would be required to include
24 the 1.5% for solar. Robert Ruedy, Energy Transition Corp., suggested that renovations
25 should qualify if they either cost more than \$1,000,000 “or” the insured value of the
26 building is “in excess of \$1,000,000, whichever is less.” David Williams, Oregon
27 School Boards Association, commented the threshold should be \$1,000,000 “and” 50%
28 of the insured value of the building, as in the original draft rules.

29
30 Discussion: The statute requires that renovations must include 1.5% for solar
31 technology if the project cost exceeds 50% of the value of the building. The
32 Department has clarified the requirement to mean the “insured” value of the building.
33 The \$1,000,000 project floor is based on the Department’s determination that the
34 installation of solar energy technology is in appropriate for projects less than
35 \$1,000,000. The Department also considers it reasonable to use the same minimum
36 project size to determine eligibility for renovations as for new construction projects.

37
38 Recommendation: No change in the proposed rules language is needed. To be eligible
39 to spend 1.5% on solar technology, renovations must both exceed \$1,000,000 in costs
40 **and** 50% of the insured value of the building.

41
42 ***Issue 5: \$1,000,000 cost threshold for eligible buildings is too high***

43 Comment(s): Frank Vignola from the University of Oregon Physics Dept. commented
44 that the \$1,000,000 threshold for projects to be eligible under these rules is too high,
45 and suggested reducing it to \$500,000. He argued that while daylighting and passive
46 design might not be able to reach the 20% savings target for less than \$15,000, those

1 measures could meet a good portion of the energy loads. In addition, lease-back
2 financing can make solar economic for smaller buildings, and solar water heaters
3 costing less than \$7,500 can be installed.

4
5 Discussion: The \$1,000,000 threshold was set to ensure that the 1.5% (\$15,000) would
6 result in a reasonably-sized system. For example, that amount would allow installation
7 of a 1-to-2 kilowatt photovoltaic system, which would allow economies of scale and
8 improved cost-effectiveness. Although solar energy systems could be installed on
9 smaller buildings, economies of scale, and resulting cost effectiveness, would be lost.

10
11 Recommendation: No change in the proposed rule language is needed.

12
13 ***Issue 6: Clarify eligible facilities with regards to non-building projects***

14 Comment(s): Ben Brantley, Eugene School District 4J, recommended that the rules be
15 clarified to apply only to “structures,” not to such projects as parking lots or athletic
16 fields that are inappropriate to use solar. ESD4J is planning to build two new synthetic
17 athletic fields, each costing more than \$1 million, and believes it makes little sense to
18 build solar panels on or adjacent to the fields.

19
20 Discussion: The statute requires solar to be included in the construction or renovation
21 of a public building. The rules further define building as enclosed.

22
23 Recommendation: No substantive change to the proposed rules is needed. Consider
24 clarifying that the rules do not apply to projects that are not enclosed buildings.

25
26 ***Issue 7: Define permanently enclosed building***

27 Comment(s): G.Z. Brown and Dale Northcutt, University of Oregon Energy Studies in
28 Buildings Laboratory, commented that the term “permanent enclosed buildings” as
29 used in proposed rule OAR 330-135-0020(1), should be defined. They ask whether the
30 term has the same meaning as defined in the Oregon Energy Code and whether an open
31 stadium would be included in the definition.

32
33 Discussion: The 2006 Oregon Structural Specialty Code defines building as “any
34 structure used or intended for supporting or sheltering any use or occupancy.” Section
35 3 of the Code defines various uses and occupancies. The legislation refines the
36 definition of building somewhat by stating the public building must be used or
37 occupied by employees of the public body, or used for conducting public business. We
38 understand those terms in the narrow (not literal) sense.

39
40 For example, in the broad sense, every public building is used to conduct public
41 business. If the legislature meant that interpretation to apply, “public building” would
42 have been sufficient and they need not have specified “used for conducting public
43 business.” The Department interprets the term “conducting public business” to mean
44 that the public uses the building directly by visiting it at least on an occasional basis.
45 Likewise, employees “use” every public building, and the legislature need not have
46 specified “used or occupied by employees of the public body” if it meant the law to

1 apply to all public buildings. The Department interprets “used or occupied by
2 employees of the public body” means that employees are in the building as a regular
3 part of their working day and that the building is enclosed by walls and a roof.
4

5 In summary, the Department defines eligible public buildings to be either buildings
6 which are used by the public, or spaces enclosed by walls and roof to allow employees
7 to use or occupy the building on a full-time basis. Referring to the Oregon Structural
8 Specialty Code, this definition would apply to all but Group U occupancies.
9

10 Recommendation: I recommend the following changes to the proposed rule language:

11 (a) Delete “enclosed.”

12 (b) Change “used for conducting public business, meaning that the public has regular
13 access to the building,” to “used by the public.”

14 (c) Change “occupied by employees of a public body on a regular basis for a
15 significant part of their work,” to “enclosed by walls and roof to allow employees to
16 use or occupy the building on a regular basis for a significant part of their work.”

17 (d) Exempt Group U Occupancies as defined in Section 312 of the 2007 Oregon
18 Structural Specialty Code in effect on January 1, 2008.

19 (e) Provide that a public body may request a clarification or recommendation from the
20 technical review panel whether a building is eligible, based on its intended use.
21

22 ***Issue 8: Is public building leased to private interests required to comply?***

23 Comment(s): Jerry Vesselo, Chemeketa Community College, asked whether public
24 building space leased to a private entity would be required to comply with these rules.
25 Chemeketa Community College is currently planning a building in which about 50% of
26 the space would be leased to outside entities. Mr. Vesselo suggested either modifying
27 the definition of “public business” or exempting non-committed lease space.
28

29 Discussion: The statute does not exempt leased space from its provisions. Therefore, if
30 the building is paid for and owned by a public body, the contracting agency must
31 comply with the requirements of this bill, regardless who they may lease space to.
32

33 Recommendation: No change.
34

35 **330-135-0025 ELIGIBLE CONTRACT PRICE**

36 ***Issue 9: Dedicated funds***

37 Comment(s): Allison Hamilton from the Oregon Department of Transportation commented
38 that the rules should address cost-effectiveness in making investment decisions. She argues
39 that state agencies have a fiduciary responsibility to make sound business decisions in
40 exercising the public trust. Joshua Dodson, Team-Build Project Management on behalf of
41 the Oregon Coast Community College, also asked whether the requirements of the statute
42 would apply to projects funded by funds dedicated to a specific use.
43

44 Discussion: We concur that this program must be administered consistently with other
45 constitutional or statutory requirements. The determination whether the project is

1 funded by dedicated funds should be made on a case by case basis at the time of
2 contracting.

3
4 Recommendation: Clarify that government funds with constitutional, statutory or
5 contractual restrictions may be excluded when determining how much must be spent
6 on solar technology.

7
8 ***Issue 10: Define “total construction costs” for purposes of calculating 1.5%***

9 Comment(s): Rep. Paul Holvey, sponsor of HB 2620, commented that total
10 construction costs should be the amount of the awarded public improvement contract
11 for construction of the building, not the amount of authorized public bonds. Jeffrey
12 Madsen, University of Oregon, commented that the 1.5% should be based on the
13 construction costs, not “total” construction costs. Robert Ruedy from Energy
14 Transition Corp. commented that it should be based on total “project” costs.

15
16 Discussion: The statute is clear that the amount to be spent on solar is 1.5% of the
17 public improvement contract.

18
19 Recommendation: Delete reference to total construction costs. The cost of the public
20 improvement contract as awarded should be used as the basis for determining how
21 much should be spent on solar technology for the building.

22
23 ***Issue 11: Are construction costs determined before incentives?***

24 Comment(s): Catherine Diviney, Portland Public Schools, requested clarification
25 whether “total construction costs” are determined before any incentives, such as BETC
26 or alternative financing arrangements. Joshua Dodson, Team-Build Project
27 Management on behalf of the Oregon Coast Community College, asked whether
28 Business Energy Tax Credits will be considered state public funds, forcing the entire
29 budget to comply.

30
31 Discussion: Yes. If it were based net of incentives, it would take several iterations to
32 calculate the amount to be spent on solar, and the entire cost of the project would be
33 well in excess of 1.5%.

34
35 Recommendation: Clarify that total construction costs are determined without
36 consideration of incentives.

37
38 ***Issue 12: Pro-rating of costs based on dedicated funds***

39 Comment(s): Joshua Dodson, Team-Build Project Management on behalf of the
40 Oregon Coast Community College, asked whether costs upon which the 1.5%
41 requirement for solar expenditures is determined would be pro-rated based on
42 dedicated funds, if the dedicated funds cannot be used for the solar portion of a project.

43
44 Discussion: We believe the Legislature intended for the equivalent of 1.5% of public
45 improvement contract to be spent on solar technology for all public buildings for
46 demonstration purposes, even if some of the funds are dedicated to other purposes.

1 However, if constitutionally, statutorily or contractually dedicated government funds
2 comprise a large share of funding for a building project, it may be appropriate to pro
3 rate the 1.5% over the remaining funds. There is currently not enough experience with
4 the program to determine where the threshold is, and, thus, it would be appropriate for
5 the technical review panel to consider this issue on a case-by-case basis.
6

7 Recommendation: The proposed rules should be revised to clarify that the 1.5% to be
8 spent on solar technology is based on the amount of the public improvement contract,
9 so long as state funds are used. If funds are legally dedicated for a specific purpose that
10 prohibits their use for solar technology constitute a significant part of the project cost,
11 the contracting agency may request a recommendation from the technical review panel
12 to pro-rate the amount to be spent on solar technology or defer the requirement to the
13 next building project.
14

15 ***Issue 13: Joint public-private ownership***

16 Comment(s): Catherine Diviney, Portland Public Schools, requested clarification about
17 how the 1.5% would be calculated in cases where a building might be shared by two
18 organizations, one public and the other not.
19

20 Discussion: If the building will be jointly owned with a non-public organization, it is
21 reasonable to pro-rate the 1.5% to be spent of solar based on the public body's share of
22 the project.
23

24 Recommendation: Allow agencies to pro rate the 1.5% to be spent on solar technology
25 for a shared building based on the public body's share of the project.
26

27 ***Issue 14: When is the amount required to be spent on solar determined?***

28 Comment(s): Susan Ross, Deschutes County, and Doug Young, Department of
29 Corrections, asked at what point the 1.5% to be spent on solar is determined and locked
30 in. Because solar technology has to be incorporated into the initial design of the public
31 improvement, it would be infeasible to make incremental changes to the solar design as
32 the cost of the project changes. Every project has contingencies that would cause the
33 actual contract costs to fluctuate, which would cause the amount to be spent on solar to
34 be a moving target. They recommended that the 1.5% requirement be based on the
35 original construction contract or the total contract after change orders.
36

37 Discussion: Staff concurs with the recommendation.
38

39 Recommendation: Revise the proposed language to provide that costs to be spent on
40 solar technology should be determined and locked in at the time the initial public
41 improvement/construction contract is signed.
42

43 **330-135-0030 ELIGIBLE SOLAR TECHNOLOGIES AND PERFORMANCE REQUIREMENTS**

1 **Issue 15: Cost-effectiveness in the procurement process**

2 Comment(s): Allison Hamilton, Oregon Department of Transportation, commented that
3 the Department of Energy should facilitate a procurement process to secure
4 arrangements for a portfolio of projects in order to benefit from economies of scale.
5 She argues that there is a direct relationship between the scale and costs of solar
6 investments. Economies of scale are lost if agencies bid one project at a time. The
7 difference in cost-effectiveness could be 20% or more.

8
9 Discussion: We concur this is a good idea. However, the Department of Administrative
10 Services (DAS) or the Department of Energy can issue an RFP and establish a master
11 list of vendors willing to meet certain pricing criteria at any time without requiring it in
12 the rules. Once it is available, there will be strong incentive for agencies to use it, for
13 the reasons outlined by the proponents, above.

14
15 Recommendation: No change to the proposed rules is needed.
16

17 **Issue 16: Eliminate independent third-party commissioning requirement**

18 Comment(s): Susan Ross, Deschutes County, questioned the logic of requiring third-
19 party commissioning ensure design intent is met and that systems function as designed.
20 Commissioning seems redundant to the project engineer, increases costs, and poses a
21 potential conflict if the commissioning agent disagrees with the original engineer.
22 Richard Ross from the Dept. of Human Services commented that commissioning
23 should not be a requirement – the benefits of commissioning can be achieved in other
24 ways without the additional costs of third party commissioning.

25
26 G.Z. Brown and Dale Northcutt, University of Oregon Energy Studies in Buildings
27 Laboratory, suggested keeping the commissioning requirement, but removing the
28 requirement it be done by a third-party commissioning agent. The people who designed
29 the building know more about design intent and systems, and are therefore most
30 qualified to evaluate the building's performance.

31
32 Discussion: Passive solar heating and daylighting are integrated with other aspects of
33 the building's systems, and should be commissioned to ensure they are performing as
34 intended. The Department's experience has clearly demonstrated the benefits of
35 independent third-party commissioning by a qualified commissioning agent, even with
36 the added expense.

37
38 Recommendation: No change to the proposed rules is needed...
39

40 **Issue 17: Allow (indirect) solar technologies**

41 Comment(s): Susan Ross, Deschutes County, Joshua Dodson, Team-Build Project
42 Management on behalf of the Oregon Coast Community College, and Jim Lewis, gLAs
43 Architects, commented that it would be preferable to consider other types of solar
44 energy technology (wind, geothermal, biomass, microhydro), which could be more
45 feasible, economical, efficient and effective.
46

1 Jeff Bissonnette, Fair and Clean Energy Coalition, one of the key supporters of the bill,
2 said that the Renewable Portfolio Standards will primarily address these other large-
3 scale resources but likely little solar energy, and the HB 2620 was intended to make
4 sure solar is adequately developed.

5
6 Discussion: The statute states that “solar energy technology shall include solar electric
7 or solar thermal systems and may include passive solar energy systems... .”

8
9 Recommendation: No change to the proposed rules is needed. Indirect solar
10 technologies are not eligible measures to meet the requirement of the statute.

11
12 ***Issue 18: Clarify baseline for determining 20% savings from passive solar***

13 Comment(s): Jim Lewis, gLAs Architects, and Joshua Dodson, Team-Build Project
14 Management on behalf of the Oregon Coast Community College, commented that the
15 20% energy savings from passive solar technology needs to be better defined, in
16 particular what shall be used at the baseline.

17
18 Discussion: A building that intends to qualify using passive solar technology must use
19 20 percent less energy compared to the baseline, which is assumed to be a building of
20 the same size, orientation, and occupancy schedule built to the minimum requirements
21 of the Oregon energy code.

22
23 Recommendation: Amend rules to clarify that a building constructed to Oregon energy
24 code is to be used as the baseline for determining whether passive solar design and/or
25 daylighting meets the requirement of reducing energy use by at least 20%.

26
27 ***Issue 19: Twenty percent (20%) passive savings requirement is too high***

28 Comment(s): Jim Lewis, gLAs Architects, and Joshua Dodson, Team-Build Project
29 Management on behalf of the Oregon Coast Community College, commented that the
30 20% energy savings requirement from passive solar technology would unfairly burden
31 agencies in areas where the local climate is not conducive to solar technology, and
32 asked what happens if the 20% goal cannot be met. Jeff Bissonnette from Fair and
33 Clean Energy Coalition, one of the key supporters of the bill, commented that the 20%
34 requirement was put in the bill precisely to make it a high hurdle for passive solar and
35 daylighting to qualify, so that just adding windows wouldn't be sufficient.

36
37 Discussion: Statute states that “a proposed passive solar energy system will achieve a
38 reduction in energy usage of at least 20 percent.”

39
40 Recommendation: No change in the proposed rule language is needed.

41
42 ***Issue 20: Metering of solar thermal systems***

43 Comment(s): Frank Vignola, University of Oregon Physics Dept., commented that the
44 rules should specify what is to be metered in connection with solar thermal systems. Is
45 it the energy produced? The net energy after nighttime losses have been subtracted?

1 Proper monitoring of solar water heating and solar space heating systems can be
2 complex.

3
4 Discussion: It is very difficult to reliably monitor the performance of solar space or
5 water heating systems, and upon reflection we don't know how the information would
6 be used.

7
8 Recommendation: Delete the requirement that solar water heating and active solar
9 space heating systems must be separately metered.

10
11 ***Issue 21: Remove requirement that solar technology meet BETC requirements***

12 Comment(s): Richard Ross, Dept. of Human Service,s commented that eligible solar
13 systems should not need to meet the requirements of the Business Energy Tax Credit
14 (BETC) program. This gives preferential treatment of many incentive programs and is
15 "tax-related," whereas other programs like the Energy Trust of Oregon offers direct
16 rebates to the public body.

17
18 Discussion: Commenter misunderstands that BETC has a pass-through provision which
19 allows a public body to benefit from the tax credit program by passing the five-year tax
20 credit to a private partner with tax liability in exchange for a payment equivalent to the
21 net present value of the tax credit. In addition, BETC is larger than the Energy Trust
22 incentive, and is not limited to PGE and Pacific Power service territories. By requiring
23 systems to meet BETC the state doesn't have to develop or enforce an additional
24 standard, and systems will be more cost-effective because of the financial benefits the
25 BETC pass-through provision enables.

26
27 Discussion: BETC already has requirements that have been vetted by Department staff.
28 We do not wish to ignore those requirements or establish another set of requirements.
29 In addition, if agencies ensure that systems are designed and installed according to
30 BETC requirements, that helps assure they will be eligible for the BETC Pass-through
31 incentive to help make the system more affordable.

32
33 Recommendation: No change in the proposed rule language is needed.

34
35 ***Issue 22: Passive heating, daylighting or combined systems should address cooling***

36 Comment(s): G.Z. Brown and Dale Northcutt, University of Oregon's Energy Studies
37 in Buildings Laboratory, commented that the performance requirements for passive
38 solar heating, daylighting, or combined systems must include ventilation of mass for
39 cooling to offset solar gains.

40
41 Discussion: Passive solar or daylighting systems must reduce the building's energy use
42 by 20% or more. To meet the requirement, one must consider the effects on energy
43 needed to cool the building. Ventilation mass may be an important piece of achieving
44 the target. However, staff believes designers should have the flexibility to meet the
45 performance requirement the best way they see fit.

1 Recommendation: No change in the proposed rule language is needed.

2
3 **Issue 23: Add “architect” where we talk about professional engineers**

4 Comment(s): G.Z. Brown and Dale Northcutt, University of Oregon’s Energy Studies
5 in Buildings Laboratory, recommended that “architect” be added to 330-135-
6 0030(1)(a) and (3)(b). Whole building modeling should be done in collaboration with
7 the architect since passive solar and daylighting systems are often integral with the
8 building.

9
10 Discussion: Modeling is done by engineers because of their familiarity with the details
11 of how systems work. A good modeler will coordinate with the architect, however
12 there is no way to enforce this.

13
14 Recommendation: No change in the proposed rule language is needed.

15
16 **Issue 24: Include solar pool heaters**

17 Comment(s): Brent Gunderson, Gen-Con Solar, commented that solar pool heating
18 should be included as an eligible technology.

19
20 Discussion: Solar pool heating can be one of the more cost-effective solar technologies
21 and can save a significant amount of energy. Where a public agency is making an
22 investment in a swimming pool, it makes sense to allow it. The agency should impose
23 some technical requirements to prevent use unglazed plastic systems with short life
24 span.

25
26 Recommendation: Make solar pool heating that meets BETC requirements an eligible
27 solar technology.

28
29 **330-135-0035 ELIGIBLE SOLAR TECHNOLOGY COSTS**

30 **Issue 25: Are professional services and other fees an allowable expense under eligible**
31 **technology costs?**

32 Comment(s): Rep. Paul Holvey, sponsor of HB 2620, commented that total
33 construction costs should not include design costs, systems development charges,
34 permit fees, or project management unless those costs are included in the public
35 improvement contract. It is difficult to show that a building design with solar
36 technology costs more than a building design without solar technology, or that there is
37 any increase in charges or fees.

38
39 Susan Ross, Deschutes County, commented that “total construction costs” should
40 exclude all professional services such as architectural design, engineering, and project
41 management. Richard Ross, Dept. of Human Services, commented that professional
42 services are not part of the definition of “public improvement contract in ORS
43 279A.010 (1) (bb). Total construction costs should be limited to those from the public
44 improvement contract, which is consistent with the application of the 1% for Arts
45 program.

1
2 Elin Shepard, Dept. of Administrative Services (DAS), recommended eliminating
3 professional fees from total construction costs — they are too broad and have no
4 relevance to energy components or a direct relation to construction. It should include
5 contractor fees, materials, permit fees, and project management. Ms. Shepard also said
6 metering is required to record energy production and third party commissioning is
7 required to ensure design intent is met, so costs of metering and commissioning should
8 be included in the 1.5%.

9
10 Robert Ruedy, Energy Transitions Corp., thought that total construction costs should
11 include, design, structural asset or modification, equipment, labor, overhead and profit,
12 and System Development Charges (SDCs). R.J. McEwen, Portland Community
13 College, said that certain types of permit fees, such as System Development Charges
14 (SDCs) and Transportation Impact Fees (TIFs) which are not related to the cost of the
15 public building, should be excluded from total construction costs.

16
17 Joe Henri, the Solar Alliance, recommended that language for eligible photovoltaic
18 system costs in 330-135-0035 mirror language in the eligible contract price section,
19 330-135-0025, to read: “For photovoltaic systems, eligible costs include the total costs
20 for construction of a system, including but not limited to design fees, engineering
21 services, materials such as modules, mounting structure, hardware and associated
22 electrical equipment, labor, system commissioning, subcontracts, permit fees, and
23 project management.” Excluding reasonable costs, such as engineering services, permit
24 fees and project management, may make it uneconomic for an installer to build the
25 required system.

26
27 John Hartsock, Beaverton School District, also suggested that “eligible costs include
28 design, modeling, permitting, project management, and commissioning costs and any
29 materials and labor costs that can be directly and uniquely attributed to the solar
30 technology solution.”

31
32 Ben Brantley, Eugene School District 4J, recommended that project management,
33 professional services and commissioning costs specifically be allowed in all relevant
34 sections.

35
36 G.Z. Brown and Dale Northcutt, University of Oregon’s Energy Studies in Buildings
37 Laboratory, suggested adding site to the total construction costs to enable solar energy
38 systems which may not be physically attached to the building, such as PV covered
39 walkways.

40
41 Jeff Madsen, University of Oregon Facilities Dept., suggested allowing the costs of
42 kiosks or other educational materials promoting the solar project to be counted toward
43 meeting the 1.5% requirement.

44
45 Discussion: The intent of the legislation is to require 1.5% of the public improvement
46 contract to be spent on solar energy technology. We believe this means that only costs

1 that can be clearly attributed to the solar energy technology should be eligible. Since
2 part of the intent of the legislation is to demonstrate solar energy technology to the
3 public by way of using it on public buildings, we believe the cost of building on-site
4 educational materials highlighting and explaining the system to the public also merit
5 inclusion.

6
7 *Recommendation:* Restrict eligible costs to equipment and labor directly associated
8 with the solar technology. Costs may include the cost of a kiosk or permanent
9 educational display about the solar system prominently located in or on the building.
10 For passive solar and daylighting systems, eligible costs may include modeling of
11 building energy performance and commissioning of the solar energy system. Disallow
12 design costs, project management, permit fees, system development charges,
13 transportation impacts fees.

14
15 ***Issue 26: Eliminate restriction on use of passive solar technology***

16 *Comment(s):* The Solar Alliance, Springfield School Board, Ben Brantley from Eugene
17 School District 4J, Scott Miller from MFIA Consulting Engineers, R.J. McEwen from
18 Portland Community College, and Mark Denyer from MFIA Consulting Engineers,
19 commented that the requirement to spend 0.75% of the construction budget on a
20 photovoltaic or solar water heating system, even if the passive solar requirement is met,
21 should be eliminated.

22
23 The Solar Alliance believes if a public body achieves 20% savings, spending more on
24 photovoltaics or active solar is unnecessary and may reduce available funds to the point
25 where no pv system can be cost-effectively installed. G.Z. Brown and Dale Northcutt
26 from the University of Oregon's Energy Studies in Buildings Laboratory asked why
27 passive solar heating and daylighting meet only half the 1.5% requirement when they
28 can save more energy than photovoltaics or solar thermal can provide.

29
30 Scott Miller believes it is too prescriptive and provides unacceptable sway to
31 manufacturers of solar panels and photovoltaic arrays. Mark Denyer believes it makes
32 pursuit of passive solar technology pointless and is contrary to the intent of the
33 legislation. R.J. McEwen thinks it devalues passive solar and daylighting technology.
34 The Springfield School Board said it is likely that eligible costs for passive solar
35 technology and daylighting, irrespective of the 20% energy savings requirement,
36 exceed 1.5% of the value of the public improvement contract. Jerry Milstead, Milstead
37 Associates, representing five school districts which passed binds in 2006, feels that
38 passive solar is more economical and would like the rules to make it easier to use it.

39
40 Rep. Paul Holvey, sponsor of HB 2620, said when passive solar can achieve the 20%
41 reduction in energy use, the rules should be more flexible than requiring 0.75% to be
42 spent on active solar, as long as active solar technology is reasonably used. Jeff
43 Bissonnette, Fair and Clean Energy Coalition, one of the key supporters of the bill, said
44 the 20% requirement was put in the bill to make it a high hurdle for passive solar and
45 daylighting to qualify, so that just adding windows wouldn't be sufficient.

1 Discussion: Daylighting and passive solar technologies are often integral to the design
2 of a building. As a result, it can be very difficult to separate out the costs, and leaves
3 room for game playing. Our intent in deeming the cost of passive solar technology to
4 be equal to 0.75 percent of the total contract price was to simplify the determination of
5 costs. However, we concur that deeming the costs of passive solar technology to be
6 0.75 percent of the contract price is arbitrary. In addition, we understand that arbitrarily
7 requiring the other 0.75 percent to be spent on active solar technology may be unduly
8 burdensome.

9
10 Recommendation: Delete the provision that passive and daylighting systems will be
11 deemed to meet half the 1.5% requirement, requiring the other 0.75% to be spent on
12 photovoltaics or an active solar system. If a passive solar and/or daylighting system
13 meets the requirement to reduce energy use 20%, all eligible costs may be counted
14 toward meeting the 1.5% requirement; if less than 1.5% is spent on passive solar and/or
15 daylighting, the remainder must be spent of photovoltaics or active solar.

16
17 ***Issue 27: Controlling price inflation***

18 Comment(s): Catherine Diviney, Portland Public Schools asked what is to stop
19 contractors from jacking up costs once they know of the 1.5% requirement.

20
21 Discussion: The Department was concerned that the increase in the Business Energy
22 Tax Credit (BETC) and availability of federal credits and Energy Trust incentives
23 would trigger price inflation, and adopted a \$/watt cap on system costs for the BETC
24 program to try to limit overcharging. If agencies plan to benefit from the BETC Pass-
25 Through provision to lower system costs and get more for their money, prices will be
26 controlled by BETC rules.

27
28 Recommendation: No change in the proposed rule language is needed.

29
30 ***Issue 28: Eligible solar technology costs***

31 Comment(s): Frank Vignola, University of Oregon Physics Dept., commented that
32 eligible costs for building integrated photovoltaic (BIPV) systems are not clear. If
33 materials need to be modified or replaced to accommodate the BIPV, such as when it is
34 installed as an awning, then the cost of that modification should not be subtracted from
35 the cost. Richard Ross, Dept. of Human Services, Robert Ruedy, Energy Transition
36 Corp., and David Williams, Oregon School Boards Association commented that
37 eligible costs for photovoltaic and solar thermal systems should include roof structural
38 modifications (e.g. curbs, supports) needed to directly support the solar technology.

39
40 Discussion: Staff concurs with the comments.

41
42 Recommendation: Amend the rules to include roof structural modifications needed to
43 support solar technology as an eligible cost. Also clarify eligible costs for BIPV as the
44 difference between the BIPV system and the conventional components the BIPV
45 system is replacing or modifying.

1 **Issue 29: Clarify eligible costs for daylighting and passive solar heating**

2 Comment(s): G.Z. Brown and Dale Northcutt, University of Oregon’s Energy Studies
3 in Buildings Laboratory, commented that window height should be changed from
4 “taller” than seven feet to “above” seven feet. They also asked whether the costs of
5 shades are eligible, and what is included in the base case cost to determine what is
6 incremental.

7
8 Discussion: “Taller” than seven feet is better than “above” seven feet. Eligible costs for
9 passive solar technology include “design, material, and labor costs that can be directly
10 attributed to the passive solar system. The intent was to allow flexibility in what was
11 allowable.

12
13 Recommendation: Change “above” to “taller,” and clarify that allowable costs may
14 include, “but not be limited to,” the prescriptive measures listed.

15
16 **330-135-0040 ALTERNATIVE FINANCING**

17 **Issue 30: Allow O&M costs associated with alternative financing**

18 Comment(s): Allison Hamilton, Oregon Department of Transportation, commented that
19 operation and maintenance (O&M) costs associated with equipment installed pursuant
20 to a power purchase agreement or lease agreement should be allowed. The state cannot
21 derive federal tax benefits unless a third-party owns the system, but responsibility for
22 operation and maintenance comes with that ownership. Thus those costs should be
23 counted toward meeting the 1.5% requirement.

24
25 Discussion: We support the comments, and thought the proposed language achieved
26 this. We were trying to exclude O&M costs related to the other building energy
27 systems as might occur with an Energy Savings Performance Contract. We believe the
28 costs for the 1.5% solar piece need to clearly identifiable.

29
30 Recommendation: O&M costs clearly associated with the solar project should be
31 allowed. O&M costs associated with other aspects of the building may not be included
32 in the solar agreement.

33
34 **Issue 31: Minimum sizing requirements for systems using alternative financing**

35 Comment(s): Kacia Brockman, Energy Trust of Oregon recommended minimum sizing
36 requirements for systems utilizing alternative financing. Third party financiers typically
37 require a minimum size, and agencies that bid a system that is too small may get high
38 bids or no bids. They recommend the size of systems be maximized within the
39 following constraints: (1) available roof area, (ii) the building’s energy consumption,
40 (iii) caps on system size for which federal, state or utility incentives are available, and
41 (iv) of a minimum size to attract a credible third party investor.

42
43 Discussion: Minimum sizing was indirectly addressed in setting the \$1,000,000 cap on
44 eligible building projects.

1 Recommendation: No change to solar technology requirements is needed.

2
3 ***Issue 32: Delete requirement that systems be “permanently” affixed to a building***

4 Comment(s): Fritz Feiten, Honeywell, and David Tooze, Portland Office of Sustainable
5 Development, commented that requiring a solar energy system to be “permanently”
6 affixed to a building would make it impossible to use a Power Purchase Agreement. If
7 a solar system is permanently attached to a building, federal tax benefits would no
8 longer accrue to the “lessor”. This would significantly affect the economics of one of
9 the most cost-effective installation options available. They suggested that deleting
10 “permanently” would allow ballasted and other installations which are “affixed” to the
11 building in a secure but less-than-permanent manner. Robert Ruedy, Energy Transition
12 Corp., suggested allowing the system to be affixed to a “structural asset” as well as the
13 site.

14
15 Discussion: We concur with the comments.

16
17 Recommendation: Delete “permanently” affixed to allow ballasted and other systems
18 installed under power purchase or lease agreements.

19
20 ***Issue 33: Eliminate maximum term of alternative financing agreements***

21 Comment(s): Fritz Feiten, Honeywell, Ben Brantley, Eugene School District 4J, and
22 David Tooze, Portland Office of Sustainable Development, commented that the 10-
23 year maximum term of agreement for alternative financing is too short and would
24 render many agreements non-compliant. Allison Hamilton, Oregon Department of
25 Transportation, agreed and said there is no advantage gained by limiting the maximum
26 term of agreement.

27
28 Discussion: Staff concurs with the comments.

29
30 Recommendation: Eliminate the requirement for a maximum term of agreement of ten
31 years.

32
33 **330-135-0045 DETERMINING WHEN SOLAR ENERGY TECHNOLOGY IS INAPPROPRIATE**

34 ***Issue 34: Clarify that the technical review panel may not consider cost-effectiveness in***
35 ***making its recommendation, not determination, that use of solar is inappropriate***

36 Comment(s): The Springfield School Board and Ben Brantley, Eugene School District
37 4J, commented that the statute does not empower the Department of Energy to set
38 criteria for determining when the use of solar is inappropriate. Thus they claim the
39 rules cannot state that the “determination” whether solar is inappropriate will not be
40 based solely on cost-effectiveness. Instead, they suggest that the “recommendation” of
41 the advisory group whether a solar energy technology is inappropriate will not be based
42 on cost-effectiveness.

43
44 Discussion: Staff concurs with the comments.

1 Recommendation: Change “determination” to “recommendation” to clarify the
2 technical review panel’s authority.

3
4 ***Issue 35: Require good faith effort to obtain alternative financing***

5 Comment(s): Robert Ruedy, Energy Transition Corp., recommended that agencies must
6 demonstrate they made a good faith effort to obtain alternative financing as a
7 consideration in making the determination that the use of solar technology is
8 inappropriate in a building. Power purchase agreements can significantly reduce the
9 cost of installing solar to an agency, and should be pursued before a determination is
10 made that solar is inappropriate.

11
12 Discussion: We believe that alternative financing can significantly improve the
13 economics of solar energy technology, and that agencies should not be allowed to
14 determine solar energy technology to be inappropriate if they have not explored
15 alternative financing.

16
17 Recommendation: List a good faith effort to explore alternative financing one of the
18 factors the advisory group may consider in making its recommendation whether use of
19 solar energy is inappropriate.

20
21 ***Issue 36: Set time limit on advisory group review of “inappropriateness”***

22 Comment(s): Elin Shepard, Dept. of Administrative Services (DAS), Susan Ross,
23 Deschutes County, R.J. McEwen, Portland Community College, and Kay Moxness,
24 Central Lincoln People’s Utility District, requested a time limit in the amount of time
25 involved to review an agency’s request that the use solar energy technology in a
26 particular building project is inappropriate.

27
28 Discussion: We agree the review process should not slow down the construction
29 schedule. In lieu of suggestions as to what is an appropriate review time, we believe 60
30 days should not be burdensome if the agency gets its request to the department in a
31 timely manner.

32
33 Recommendation: Set a 60-day time limit for technical review panel review.

34
35 ***Issue 37: Maintaining a non-preferential list of solar technology providers***

36 Comment(s): Joe Henri, The Solar Alliance recommended that the rules state that “the
37 department will provide on its website, in a non-preferential manner, the contact
38 information for designers, architects, solar technology providers, solar installers, etc.,
39 who wish to make their services available to public bodies with eligible building
40 projects in order to help them meet their solar requirement.”

41
42 Discussion: This information may be helpful to public bodies, but is not critical to
43 proper administration of this legislation. If the Department chooses to provide this
44 information it can be done without rule authority.

45
46 Recommendation: No change in the proposed rule language is needed.

1
2 **Issue 38: Better define the function of the technical review panel to review when solar is**
3 **“inappropriate”**

4 Comment(s): Kay Moxness, Central Lincoln People’s Utility District, requested
5 clarification whether the technical review panel established to review requests whether
6 use of solar energy technology is “inappropriate” is a permanent or ad hoc committee.
7 If it is permanent, there should be mention of term length and geographic
8 representation. If it is ad hoc, or *situational*, then members should be more local.

9
10 Discussion: The technical review panel is intended to be a standing committee that
11 makes non-binding recommendations of limited scope. Thus, the Department will
12 request that members agree to three year terms, but may accept less depending on
13 availability. The Department will also seek geographic diversity, but the committee is
14 too small to be able to guarantee it.

15
16 Recommendation: Clarify that the committee is a standing panel with terms of up to
17 three years.

18
19 **Issue 39: Clarify authority of technical review panel**

20 Comment(s): R.J. McEwen, Portland Community College, recommended clarification
21 whether the technical review panel’s recommendation whether the use of solar is
22 inappropriate is advisory or binding. He believes it should be advisory. Springfield
23 School Board also commented that the technical review panel makes a
24 recommendation, not the final determination, whether solar is inappropriate in a
25 particular building project. Dave Williams, Oregon School Boards Association, and
26 Richard Ross, Dept. of Human Services, commented that the statute says the
27 contracting agency makes the determination whether it would be inappropriate to
28 include solar technology in a building project. The agency has to carry the money
29 forward, so there is little or no incentive to “willy-nilly” determine solar to be
30 inappropriate.

31
32 Discussion: Staff thought it was clear that the recommendations of technical review
33 panel were non-binding. Considering the comments otherwise, we concur it should be
34 made clearer.

35
36 Recommendation: Clarify that the technical review panel makes a recommendation
37 whether solar technology is inappropriate, and the contracting agency makes the final
38 determination.

39
40 **330-135-0050 DEFERRAL OF REQUIRED SOLAR EXPENDITURES TO FUTURE BUILDINGS**

41 **Issue 40: Remove inconsistency in funding source for current and future projects**

42 Comment(s): Wayne Graham, Oregon Military Department, commented that the
43 requirement that 100% non-state (federally) funded projects must include 1.5% of the
44 project budget for solar energy technology is inconsistent with the exemption for 100%

1 non-state funded projects deemed inappropriate for solar technology from deferring the
2 money to a future building project.

3
4 Discussion: The statute requires that all public building projects spend an amount
5 equivalent to 1.5% of the public improvement contract on solar energy technology for
6 the building, regardless whether they receive state funds (we allow an exception by rule
7 for certain federal or constitutionally obligated funds). If the building receives state
8 funding and solar is determined to be inappropriate for that building, an equivalent
9 amount of funds shall be deferred to a future building project. If the building does not
10 receive state funding and solar is determined to be inappropriate for that building,
11 funding is not required to be deferred to a future building project.

12
13 Recommendation: No change in the proposed rule language is needed.

14
15 ***Issue 41: Allow deferral of solar requirement to an another project/site***

16 Comment(s): Wayne Graham, Oregon Military Department, questioned why deferred
17 funds can be applied to the next building project but not to an existing project owned
18 by the agency. David Furr from Salem-Keizer Public Schools commented that the
19 restriction against deferring funds to another project or site hinders their plans to
20 consolidate projects and gain economies of scale.

21
22 R.J. McEwen, Portland Community College, said funds should be allowed to be spent
23 on existing buildings. Elin Shepard, Dept. of Administrative Services (DAS),
24 commented that legislative intent of the bill could be met by allowing funds to be
25 deferred from a site determined to be inappropriate for solar to be spent on an existing
26 building owned by the agency. Frank Vignola, University of Oregon Physics Dept.,
27 suggested allowing funds to be deferred to an existing project if the system is net
28 metered and on the same feeder line.

29
30 Discussion: Staff supports the intent of these comments. However, General Counsel
31 has advised the law is clear that it applies to “the building” to which the public
32 improvement contract applies. Funds may be deferred to a “future” building project
33 (interpreted by these rules as the “next” building project), but not to an existing
34 building.

35
36 Recommendation: No change in the proposed rule language is needed. Funds must be
37 spent on the building for which they are allocated. They may not be spent on another
38 existing building or site not currently undergoing renovation.

39
40 ***Issue 42: Allow deferral of solar requirement to a future rather than the “next” project***

41 Comment(s): Allison Hamilton, Oregon Department of Transportation, commented that
42 if a project is determined to be inappropriate for solar, funds should be deferred to a
43 future building project rather than the “next” project. ODOT argues that deferring
44 funds to a future building project rather than the next one makes it possible for the
45 agency to select a project that offers the most promise for a cost-effective investment.
46 Also, where an agency relies on diverse and/or dedicated funding sources, for capital

1 projects, it would allow the agency to better match the investment obligation with the
2 funding source. R.J. McEwen, Portland Community College, commented that deferral
3 to the “next” building project may not make sense and supported deferral as a matter of
4 local governance.

5
6 Discussion: In general we think deferred funds should be spent on the “next” building
7 project. This will ensure that funds don’t get deferred indefinitely, and ease the
8 administrative burden of tracking deferrals. However, we believe it is appropriate for
9 an agency to seek a recommendation from the technical review panel to defer funds to
10 another future project if that project is clearly identified and is planned in the short-
11 term future.

12
13 Recommendation: No change to the requirement that funds must be deferred to the next
14 project, except that an agency may appeal to the technical review panel for a
15 recommendation to defer funds to another future project if that future project is clearly
16 identified and is planned in the short-term future.

17
18 ***Issue 43: Clarify what constitutes “indirect” funds for purposes of deferral***

19 Comment(s): John Hartsock, Beaverton School District, David Williams, Oregon
20 School Boards Association, Robert Ruedy, Energy Transition Corp., and R.J. McEwen.
21 Portland Community College, requested clarification of the provision that the deferral
22 to a future building project does not apply if no state funds are directly or “indirectly”
23 used. Jerry Milstead, Milstead Associates, representing five school districts which
24 passed bonds in 2006, commented that operating funds should not be considered to be
25 indirect funds. He also commented that if no state funds are used, the agency shouldn’t
26 have to request a recommendation from the technical review panel whether solar is
27 inappropriate for that building.

28
29 Rep. Paul Holvey, sponsor of HB 2620, said that operating funds of an agency are not
30 considered direct or indirect funds of the public improvement contract for construction;
31 however, grants, credits, or incentives from or administered by the state would be.

32
33 Discussion: We never intended for state general purpose funding of an to be considered
34 a “direct” or “indirect” cost, and thought that was clear in the proposed language.

35
36 Recommendation: Clarify that state funds include funds authorized for construction or
37 renovation of the building. Incentives (e.g. Business Energy Tax Credit) and funds
38 intended to support general purposes operations are not considered direct or indirect
39 state funds for purposes of these rules.

40
41 ***Issue 44: Deferral of solar energy expenditures due to local climate***

42 Comment(s): Joshua Dodson, Team-Build Project Management on behalf of the
43 Oregon Coast Community College, asked what happens if solar is not appropriate
44 because of local climate, and no project within the agency’s service district would
45 qualify. Would the deferral fund continue to accumulate until it is large enough to meet
46 the 20% energy savings criteria for some future project?

1
2 Discussion: We see nothing in the bill to suggest that climate should be a consideration
3 in deeming solar energy technology to be inappropriate.

4
5 Recommendation: No change in the proposed rule language is needed.
6

7 ***Issue 45: Post requests for waiver for “inappropriate” on Department website***

8 Comment(s): Joe Henri, The Solar Alliance, commented that the Department should
9 post on its website requests to the technical review panel for a recommendation
10 whether use of solar energy on a particular project is inappropriate. A contracting
11 agency may not have received complete input or been able to review all alternatives
12 before making its tentative determination. Posting the request will alert the solar
13 industry and create an opportunity for additional input.
14

15 Discussion: Requests to determine solar energy technology to be inappropriate, as well
16 as other information relating to this program, is public information and the Department
17 will try to make the information available. However, administrative rules are supposed
18 to deal with requirements with which the subject agencies must comply.
19

20 Recommendation: No change in the proposed rule language is needed
21

22 ***Issue 46: Clarify how much to spend on a future building project***

23 Comment(s): R.J. McEwen, Portland Community College said the requirement that a
24 public body must spend an “equivalent amount” on the next building project pursuant
25 to 330-135-0040(4) is vague, and suggested that “undepreciated value” is a better-
26 defined measure. Robert Ruedy, Energy Transition Corp., suggested that if solar is
27 removed from the building within 10 years of completion the agency must spend an
28 equivalent amount “escalated to index with inflation from the original completion
29 date.”
30

31 Discussion: “Undepreciated value” would ensure the value of the solar deferred to a
32 future building project is not eroded due to inflation or the time value of money.
33 However, it is much more difficult to administer and will be a source of contention.
34

35 Recommendation: No change in the proposed rule language is needed.
36

37 **330-135-0055 REPORTING OF EXPENDITURES ON SOLAR ENERGY TECHNOLOGY**

38 ***Issue 47: Require agencies to report notice of planned projects on ODOE website***

39 Comment(s): Joe Henri, The Solar Alliance, commented that agencies should be
40 required to notify the Department of a planned project “upon completion of the
41 preliminary cost estimate for the project and approval to proceed to bidding of the
42 project,” and that the Department should post this information on it’s website. This will
43 help avoid retroactive enforcement of the rules.
44

1 Discussion: Through the State Energy Efficient Design (SEED) and the High-
2 Performance Schools programs that the Department administers, we already receive
3 early notice for proposed new state, university, and public school building projects. We
4 will encourage local governments to notify us early as well, to help prevent problems
5 related to this program as well as to provide guidance on other energy efficient design
6 considerations as well. However, the Department is not funded to provide technical
7 assistance or funding to local governments on energy efficient design, so it is
8 inappropriate to do more than encourage them to notify us early.

9
10 Recommendation: No change in the proposed rule language is needed.

11
12 **Issue 48: Report itemized costs**

13 Comment(s): Robert Ruedy, Energy Transition Corp., recommended that reporting
14 include “itemized” costs, “defined by individual systems.”

15
16 Discussion: We agree it would be good to know itemized costs by major system type,
17 such as photovoltaics, solar water heating, passive solar or daylighting. Agencies are to
18 report costs and system type, and give the Department flexibility to require that
19 additional information be reported. We believe that is sufficient. If the commenter is
20 suggesting we need incremental costs beyond that, we would question the benefits of it.

21
22 Recommendation: No change in the proposed rule language is needed.

23
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25
26 **Conclusion**

27 For the reasons I have discussed above, I recommend ...

28 Respectfully Submitted,

John Kaufmann
Senior Policy Analyst
Oregon Department of Energy
Hearing Officer for Conservation Division

Date