NSHP Energy Efficiency

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NSHP Training Workshop
Changes to Efficiency Requirements

- Incorporated 2013 Building Energy Efficiency Standards
  - Code Compliant Incentive Level
  - Tier I
    - 15% compliance margin for residential buildings
    - 10% compliance margin for non-residential buildings
  - Tier II
    - 30% compliance margin for residential buildings, 30% space-cooling compliance
    - 15% compliance margin for non-residential buildings, 15% space-cooling margin
- Solar Compliance Credit (2013 Standards only)
  - Available for single family projects in Climate Zones 9-15
  - Credit available only when 2015 federal AC standards are used
  - Cannot be claimed for 2013 Code-Compliant projects
  - Can be claimed for 2013 Tier I and Tier II projects.
Changes to Efficiency Requirements (cont.)

- **Revised Title 24, Part 6 form names for 2013**

<table>
<thead>
<tr>
<th>Previous Name</th>
<th>Revised Name</th>
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<tbody>
<tr>
<td>CF-6R Certificate of Field Verification</td>
<td>CF-2R Certificate of Installation</td>
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<tr>
<td>CF-4R Certificate of Field Verification and Diagnostic Testing</td>
<td>CF-3R Certificate of Verification</td>
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- **Revised NSHP Efficiency Verification Form Name**

<table>
<thead>
<tr>
<th>Previous Name</th>
<th>Revised Name</th>
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<tbody>
<tr>
<td>CF-4R-EE NSHP Certificate of Field Verification</td>
<td>NSHP EE-3 Additional Energy Features Checklist</td>
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NSHP EE Requirements

• Any building whose electric load is offset by the PV system must meet NSHP EE requirements.

• For Common Area PV System incentives:
  – Residential Subdivision
    • All Homes meet NSHP EE requirements
  – Multifamily Development
    • All least one residential building must meet NSHP EE requirements
Code Compliant Incentive Level Requirements

• Compliance documentation may be completed by anyone legally authorized to 2013 Title 24, Part 6 compliance documentation.
• Not allowed to claim solar compliance credit.
• Must submit a copy of the Title 24 compliance documentation run using the 2013 compliance software.
  – Same as documentation submitted to local building department
• Must select a HERS Rater for their PV inspection
  – No NSHP energy efficiency verification will be required
Utility New Construction Program Participants

- Complete Utility EE Requirements, not NSHP EE requirements
  - Do not submit any EE documents to NSHP
    - CF-1R
    - Electronic input files (.bld or .mp8)
    - Plan Set and Checklist Items – no NSHP Plan Check
  - Do not need to complete NSHP EE Verification
    - NSHP EE-3 does not need to be filled out
    - Only PV Verification by a HERS Rater needs to be completed
- Required Documentation
  - Utility EE Program Approval Letter with Reservation Application or alternate PA confirmation
  - Submit Utility EE Program Payment Letter to NSHP with Payment Claim Application or alternate PA confirmation
NSHP Plan Check Requirements

• NSHP Plan Checks Required for all projects except:
  – 2013 Code-Compliant NSHP projects
  – Projects with compliance documentation signed by a CEA certified for the 2013 Standards
  – Projects participating in a utility new construction energy efficiency program
  – Projects that have their NSHP Plan Check waived do not need to submit:
    • Construction Plan Set
    • Electronic input files (.bld or .mp8)
    • Plan Set and Checklist Items – no NSHP Plan Check
Plan Check Documentation

- Plan Check Checklist listed in Appendix C
- Construction Plan Set
  - Architectural, Electrical, Mechanical, and Plumbing
  - Window/Door Schedule showing sizes and including ALL skylights
  - Elevation, wall, roof, floor construction assemblies
  - Floor finish schedule (if CF-1R shows high mass design)
  - A site plan with a North Arrow (custom homes)
Plan Check Documentation

• Title 24 and PV Forms and Files
  ➢ CF-1R-prepared by a Certified Energy Plans Examiner
  ➢ .bld or .mp8 (EnergyPro or Micropas)
  ➢ CF-1R-PV
  ➢ .her and .emf

• Equipment and Materials Spec Sheets
  ➢ Windows, Glazed Doors, Skylights
  ➢ Space Heating
  ➢ Air Conditioning(www.ahridirectory.org)
NSHP HERS Provider

- CalCERTS and CHEERS are the only HERS registries certified for NSHP EE and PV field verification

www.cheers.org  www.calcerts.com
HERS Registry Process

• Parties Involved:
  – Project Created by: Energy Consultant/HERS Rater or NSHP PA
  – Project Owned by: HERS Rater
  – Project Shared with: Energy Consultant, HERS Rater (PV and EE), PA

• Steps Involved:
  – Approved CF-1R and NSHP PV-1 uploaded to registry by NSHP PA
  – If not created by HERS Rater, project is transferred to Rater and shared
  – If Rater not on transfer list, PA contacts Provider to have Rater added
  – Homeowner requested to sign off on CF-1R
  – After homeowner signoff, Rater can access CF-1R and can upload inspection results
  – If changes are made to building, a new CF-1R must be submitted for review
Energy Efficiency Inspection

• Before EE Inspection:
  – Rater must obtain applicable CF-2R(s) from installer
  – Rater must obtain NSHP EE-3 from registry

• HERS rater will verify installed features listed on form
  – Pre-drywall inspection
    • HERS Rater may need to come on-site
    • Pictures, invoices and CF-2Rs can be used as verification. Must be okayed by HERS Rater first.
    • QII must be completed pre-drywall
  – Final inspection
    • HERS Rater completes NSHP EE inspection (NSHP EE-3)
PERF-1 Projects

• No way to currently upload a PERF-1 to CalCERTS registry
  – Applies to non-residential buildings and high-rise residential buildings greater than three stories

• Must submit all Acceptance Test results, HERS Test Results, and Utility Inspection Results to the NSHP PA for review.
  – After reviewing the submitted documents, the PA will sign off that the project has met all NSHP EE requirements
Photovoltaic System Inspection

• Before PV Inspection
  ➢ Rater must obtain applicable NSHP PV-2 (formerly CF-6R-PV) from installer
  ➢ Rater must obtain PV checklist from HERS registry

• During PV Inspection
  ➢ HERS rater will verify system installation matches NSHP PV-1 and NSHP PV-2

• After PV Inspection
  ➢ HERS Rater upload verification results to registry to generate NSHP PV-3
Questions ???

2008 Documents available at:
http://www.energy.ca.gov/title24/2008standards/

2013 Documents available at:
http://www.energy.ca.gov/title24/2013standards/

Energy Standards Hotline
title24@energy.ca.gov
1-800-772-3300

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