Summary of the
American Clean Energy and Security Act of 2009

This document summarizes H.R. 2454, the American Clean Energy and Security Act of 2009, as reported out of committee and the subsequent amendment from Chairman Waxman, H.R. 2998. Page numbers such as "p. 26" indicate the main piece of legislation. Page numbers such as "A19" refer to the page within the Waxman amendment.

Renewable Portfolio Standards

SEIA's Goals

- Pass a national Renewable Portfolio Standard that is designed to encourage the growth of all forms of renewable energy, including all solar applications (utility-scale, distributed, and solar water heating).

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- Renewable Portfolio Standard
  - 20% by 2020 and through 2039 (p. 30)
  - Energy efficiency has been combined into the RPS title (p. 26, p. 36)
  - Up to 25% of the RPS requirement can come from energy efficiency improvements (p. 27)
  - Governor can petition for up to 40% to come from annual electricity savings (p. 27)
  - Credits can be banked (p. 36)
  - Establishes an RPS for all federal energy purchases. The Federal government must purchase 6% renewable energy by 2012, increasing to 20% by 2020. (A10, modifies p. 49)
- Distributed Generation (p. 12-13)
  - Facility that generates renewable electricity (Solar Thermal would not count)
  - Primarily serves 1 or more electricity consumers at or near the facility site
  - Is no larger than 2 megawatts in capacity for facilities in service at the time of enactment, 4 megawatts for new facilities
  - 3x REC multiplier for DG systems (p. 32)
- Definition of Retail Electric Supplier (p. 23-24)
  - Over 4 million megawatt hours to electric consumers during preceding calendar year
  - Non qualified hydroelectric, new nuclear, and fossil-fueled facilities equipped with carbon capture excluded from baseload calculation
- Alternative Compliance Penalties (p. 43-45)
  - $25 per megawatt-hour (adjusted for inflation)
  - Payment to go to states to be used for deploying renewable electricity generation and energy efficiency mechanisms
  - Requires that if a utility uses ACP they must certify that it has maximized the level of deployment of renewable electricity generation (measured in megawatt hours) and electricity savings per dollar. (A7, modifies p. 44)
- Solar Water Heating
  - Solar hot water now qualifies as a technology that meets the efficiency portion of the RPS requirement. (p. 37)

Climate

SEIA's Goals

- Allowances: Establish a cap and trade system in which emission allowances are distributed to renewable energies based on their energy output. The allowance allocation must apply to all scales of solar generation, and credit solar thermal in a kWh equivalent.
- Auction Revenue: 5% of the allowance auction proceeds should go into a "Solar Technology Deployment Fund."
- Market Barriers: Any allowance or auction proceed flowing to the states should be contingent upon the adoption of renewable energy best practices, such as retail net metering, adoption of interconnection standards, prohibition on restrictive covenants that hinder the use of renewable energy, and restrictions on permitting fees.
- Preserve State Programs: State programs that incentivize the deployment of solar energy must be preserved.

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- Allowances:
  - Renewable energy and energy efficiency receive 9.5% of emission allowances the first 4 years, declining afterwards until 2050. (p. 712)
    In contrast, the coal industry receives zero allowances until 2014 when it receives 1.75% per year (and 4.75% in 2018-2019, and 5% 2020-2050). (p. 711) Assuming $30/allowance, in the first year alone, the 9.5% going to RE/EE is worth approximately $13.2 billion dollars. Over the course of 10 years, this is worth approximately $115.6 billion dollars. States have control of the allowances and the proceeds, of which at least 20% must be used exclusively for renewable energy projects, with no limit on the project size or scale. Accordingly, over this ten-year term (assuming a $30/allowance), $23.1 billion dollars would be available for renewable energy deployment.
  - In addition, solar technologies qualify for the 0.5% of allowances which go toward greater efficiency standards for buildings. (p. 713)
  - Also, 0.5% of total allowances are allocated to small electricity local distribution companies for 2012-2025, declining afterwards until 2029. "Small" means less than 4 million MWh of electric energy delivered directly to retail consumers in a year. (p. 705)
  - Solar can also potentially qualify for allowances allocated to Energy Innovation Hubs, investment in workers, domestic and international adaptation, and the international clean technology fund. (p. 713-715)
- Auction Revenue: Currently all auction proceeds are being directed towards reduction of the deficit and a Climate Change Consumer Refund account. (p. 721)
- Preservation of State Programs: As long as a State does not implement a cap and trade program or similar program that caps and trades emissions, the bill makes no mention of state programs that incentivize the deployment of solar energy and does not appear to affect them.

Transmission

SEIA's Goals

- Develop a strong national transmission grid that enables increased renewable energy generation.
- Secure transmission policy reforms that include:
  - Interconnection-wide planning
  - Interconnection-wide cost allocation
  - Streamlined siting processes (with federal oversight)

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- Regional transmission grid planning (A19-A37, modifies p. 164-170)
  - Not later than 1 year after enactment, FERC shall adopt rules for national electricity grid planning principles that will apply to on-going and future transmission planning
  - Not later than 3 months after adoption of rules by FERC, regional planning entities must identify themselves and the regions for which they propose to develop plans
  - FERC shall encourage cooperation and coordination across regions; provide support and assistance as requested; and assist regional planning entities in resolving conflicts between plans
  - Plans must be submitted to FERC 18 months after final rule is issued
- Federal siting authority (A19-A37, modifies p. 164-170)
  - This authority applies only to the Western Interconnection and only to interstate transmission projects.
  - States will have one year from time of filing of a proposal to site a transmission project identified in the planning stage.
  - If state(s) have been unable to site the facility or have denied the application, the transmission developer may go to FERC for its siting permits. FERC shall consider any siting constraints and mitigation measures identified by state and local authorities.
  - Dept. of the Interior will be the lead agency for any transmission project that involves public lands.

Other Solar-Related Provisions

SEIA's Goals

- Provide the federal government with long-term Power Purchase Agreement (PPA) authority.
- Create a bank that would be the central office for the government to provide a range of financial tools to support the construction of renewable energy in the U.S. This bank would include rebates, loan guarantees, and other financial mechanisms to finance solar energy deployment and generation.

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Long-Term Power Purchase Agreements for Federal Agencies (A10, modifies p. 49)

- Grants federal agencies the authority to enter into 20-year power purchase agreements for renewable energy.
- Requires the Secretary of Energy to report agency-by-agency renewable electricity consumption.

- Requires the Secretary of Energy, through the Federal Energy Management Program, to publish a standardized renewable energy purchase agreement that contains commercial terms and conditions that Federal agencies may use to acquire electricity generated from a renewable energy resource.

Clean Energy Bank (p. 247-275)

- Establishes a Clean Energy Deployment Administration to aid the domestic development and deployment of renewable technologies including solar.
- CEDA would be empowered to provide a suite of financing options, including direct loans, letters of credit, loan guarantees, insurance products and others.

Interconnection and Net Metering (p. 170-175)

- Interconnection and net metering is required for all federal facilities. This requirement only applies to utilities that sold over 4 million MWh of electricity in the preceding year.

Elimination of Restrictive Covenants, High Permit Fees

- Conditions receipt of Community Development Block Grant (CDBG) funding on a limit for the costs of a permit or license for the construction or installation of any solar system (Residential: $500; Non-residential: $1000), including solar thermal systems. (A53, modifies p. 382)
- Makes it illegal for any private covenant, contract provision, lease provision, homeowners' association rule or bylaw for one-family homes to prohibit the installation of solar systems, including solar thermal. (A56, modifies p. 382)

Jobs and Worker Training

- The Secretary of Education will award grants, on a competitive basis, to eligible partnerships to develop programs of study focusing on emerging careers and jobs in renewable energy, energy efficiency, and climate change mitigation. (p. 955)
- Authorizes the HUD Secretary to create grants to train, education, support, or advise community development organization or qualified youth service and conservation corps in improving energy efficiency or installing or constructing renewable energy improvements, including solar. (A143)
- Establishes an Energy Efficiency and Renewable Energy Worker Training Fund. (A250, modifies p. 955)
- Establishes within the Department of Labor an information and resources clearinghouse to aid career and technical education and job training programs for the renewable energy sector. (A250, modifies p. 955)

Smart Grid Advancement (p. 147-164)

- Each load serving entity shall prepare a peak demand reduction plan that demonstrates its ability to meet each applicable goal by any or a combination of the following options such as megawatts from a demonstrated and assured minimum of distributed solar electric generation capacity in instances where peak period and peak demand conditions are directly related to solar radiation and accompanying heat.

Energy Innovation Hubs (p. 216-230)

- The Energy Secretary shall carry out a program to establish Clean Energy Innovation Centers to enhance the Nation's economic, environmental, and energy security by promoting commercial deployment of clean, indigenous energy alternatives to oil and other fossil fuels,

reducing greenhouse gas emissions, and ensuring that the United States maintains a technological lead in developing and deploying state-of-the-art energy technologies. Clean energy technology includes solar resources.
- The center will focus on the advancement of clean energy technologies including solar.

Competitive Grant Program (p. 288-289)
- The Secretary of Energy will provide grants to organizations to conduct business competitions to offer incentives and training to entrepreneurs and early stage start-up companies to meet environmental, energy, and economic goals including renewable energy.

State Feed-in-Tariff (p.48)
- A State-approved production incentive program under which a facility voluntarily sells electric energy from renewable energy sources. Under this program, a State legislature or regulatory authority may set the rates for the sale of the electric energy.

Building Efficiency Knowledge Centers (p. 232-234)
- The Secretary of Energy will provide funding to institutions of higher education for Building Assessment Centers to identify opportunities for optimizing energy efficiency and environmental performance in existing buildings. Solar water heaters qualify for this program.

National Energy Efficiency Goals (p. 506)
- Establishes a goal to improve the overall energy productivity of the U.S. by at least 2.5 percent per year by 2012 and to maintain that annual rate of improvement.

Development Corporation for Renewable Power Borrowing Authority (A41, modifies p. 296)
- Authorizes $25 million to establish a new Federal lending authority, the Development Corporation for Renewable Power Borrowing Authority, of up to $3.5 billion for geographic areas in the U.S. that do not contain large amounts of renewables and that lack a federal power marketing agency. (E.g., there is no power marketing agency in the Northeast.)

Energy Efficiency Building Retrofits (A42, modifies p. 344)
- Allows federal disaster funds to qualify as a building owner's matching contribution, under the Retrofit for Energy and Environmental Performance (REEP) program, for energy efficiency improvements.

Clean Energy Manufacturing Revolving Loan Fund (A63, modifies p. 496)
- Establishes a Clean Energy Manufacturing Revolving Loan Fund Program to provide loans to small and medium-sized manufacturers to finance the cost of re-equipping, expanding, or establishing a manufacturing facility in the United States to produce clean energy technology products, energy efficient products, or reduce the energy intensity or greenhouse gas production of a manufacturing facility. Up to $15 billion is authorized for the fund in Fiscal Years 2010 and 2011.

Green Building Provisions

- Creates a demonstration program within DOE to fund the costs of energy-efficiency improvements for multifamily housing projects that receive project-based rental assistance. Installing solar equipment qualifies within the demonstration program. (A101)
- Gives Fannie Mae and Freddie Mac authority to insure energy-efficiency mortgages. These include installation of solar systems. (A114)
- Solar Counts toward energy efficient certifications for manufactured housing with mortgages. (A129)
- Requires consideration of the installation of renewable energy sources when doing private property appraisals. (A155)
- Establishes the Alternative Energy Sources State Loan Fund and authorizes $5 billion for its funding. The fund can provide loans to States and Indian Tribes to incentivize the installation of renewable energy systems in homes, commercial property, and public buildings. (A159)