

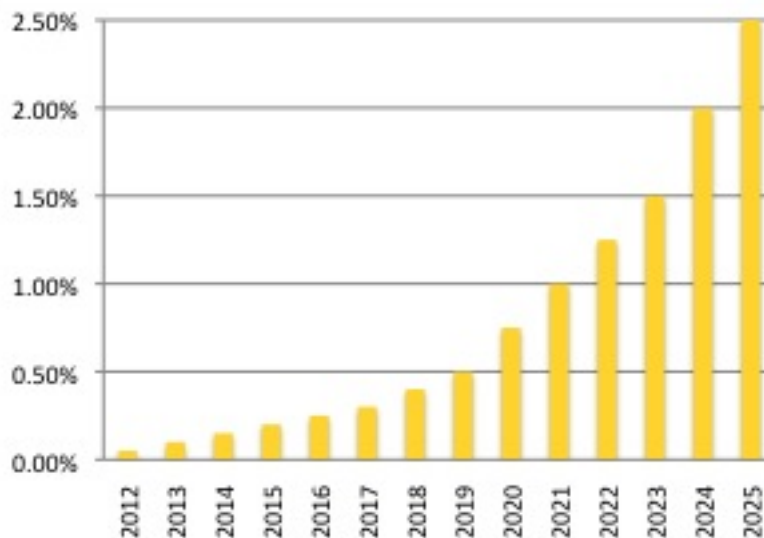
NEW YORK SOLAR JOBS AND DEVELOPMENT ACT S.7093a/A.11004 What it Does and How it Works

The New York Solar Industry Development and Jobs Act establishes a program to develop over 5,000 MW of solar power capacity in the state by the year 2025. The legislation sets a firm goal, with real penalties for non-compliance, yet provides for much flexibility in implementation. Drawing from proven models in other states such as Colorado, Pennsylvania, New Jersey, California and Arizona, the bill also guarantees the development of multiple market segments, from small retail solar installations to large utility-scale wholesale solar power.

What it does

The legislation requires that each New York retail electric supplier gradually increase the amount of solar energy produced, until they reach at least 2.5% of their sales by 2025. Scaled statewide, this works out to about 5,000 MW over the course of the program. By providing clear annual requirements that ramp from just 0.05% in 2012 to larger targets as the local market scales up and costs come down, the legislation provides the long-term market security necessary for business investment and workforce development. It's a transparent and achievable blueprint for strong market growth.

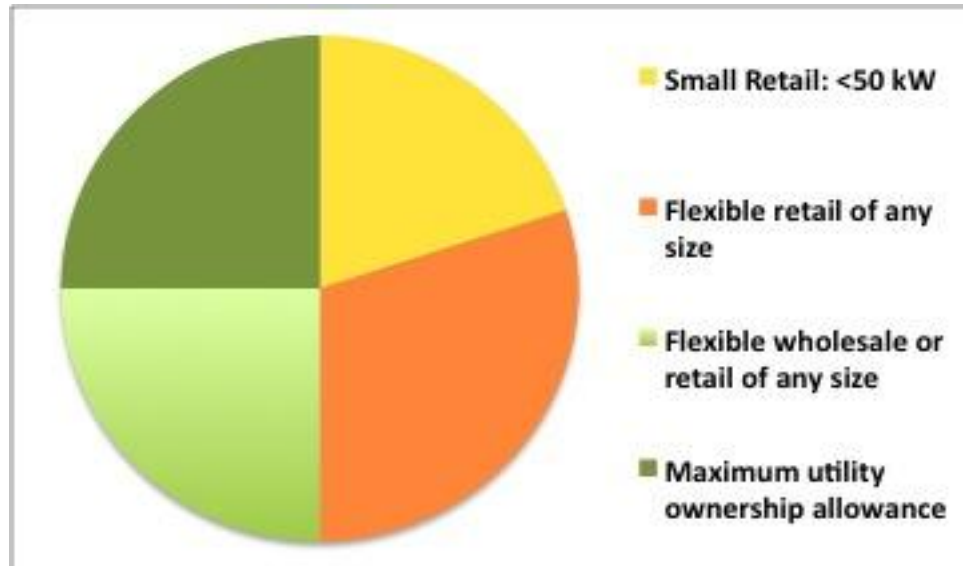
Figure A: Annual Solar Targets Ramp Up as New York's Market Scales



The bill also supports a broad diversity of business models, developers, and system sizes so that industry growth can occur in all market segments. Half of the total solar requirement is to be met with customer-sited retail energy installations (i.e. rooftop systems that reduce individual customers' utility bills), with at least 20 percent of annual obligations from small solar systems (50 kW and under), and at least an additional 30 percent of annual obligations from retail solar systems of any size, including larger commercial systems. The other half of the total requirement can come from wholesale solar power systems (i.e. generation for sale into the regional power markets). The program also allows for leveraging the "patient capital" of the state's investor owned utilities, allowing them to meet up to 25% of their total solar obligation through assets they own and operate. One of the strengths of the

plan is that it provides growth opportunities across diverse market segments, from small to large, from homeowners that want to use solar to reduce their electricity bills to utility-scale power plants.

Figure B: Building a Diverse Solar Energy Market in New York



How it works

The mechanics of the program come from best practices and lessons learned from successful solar programs in other states. It has a combination of firm requirements necessary to attract investment, and flexibility to respond to changing market dynamics, local preferences, local regulatory structure and political realities.

The bill establishes:

- A firm mandate of 2.5% solar by 2025, with real penalties for non-compliance.
- Requirements for diverse market segment development; wholesale and retail, residential sized installations to utility-scale solar farms
- Contract terms of at least 15 years to secure the long-term investment necessary for solar
- A fixed tariff for small systems under 50 kW in size.
- A standard template solar purchase agreement to prevent overly onerous terms and conditions
- Non-compliance penalty levels to be set "at a level...necessary to achieve the obligations"
- A statewide transparent compliance tracking program

With these requirements laying the foundation, the bill then requires each electric distribution company (i.e. utility) to file an implementation plan for approval with the Public Service Commission (PSC). The PSC then evaluates the results of the utilities' solicitation to ensure that they are conducted in "fair, open, competitive and transparent" manner, and result in success "at the lowest reasonable cost." LIPA and NYPA also have similar solar procurement requirements as the electric service providers.

Having the flexibility for program development customized to individual electric supplier circumstances is strength of the proposal. New York's regulatory structure has resulted in a variety of different types of companies involved in selling and delivering electricity in the state; programs need to be individually tailored to fit different companies' customer base, regulatory structure and solar opportunity. Also, the solar market is dynamic--this approach allows for prudent adjustments as technology advances and costs change. Because laws are difficult to change, it is good practice to set goals with legislation, and leave the implementation details up to regulatory bodies.

Incentive Structure

What might the incentive structures in implementation plans look like? We can't say with precision due to the aforementioned flexibility, but from the direction in the legislation, and the examples of successful programs in other states¹, we expect:

- Small retail systems (under 50 kW) will receive a fixed incentive, at levels that would decline over time as installation costs come down.
- Larger commercial systems will either receive fixed incentive offers (CO, AZ, and NM offer fixed incentive contracts of ~\$0.12-15 kWh over ~15 yr terms, incentives decline as market grows), or compete for incentives through periodic competitive procurements (i.e., several times a year, solar developers bid the incentive level they need to make a project's economics work; utilities select lowest bids until the available funds in the round run out; losing bids can try again next round. NJ has an open competitive incentive process; this bill contains significant improvements by requiring 15 year contracts).
- On the wholesale side, utilities could own 25% of the total requirement, or could purchase solar energy through contracts with independent solar developers. In states like CA and AZ with an established solar industry, wholesale contracts for mid-size solar plants are under \$0.14/kWh, and falling.

Summary

The New York Solar Development and Jobs Act sets firm goals, lays out the necessary architecture to attract solar investment, and ensures development of diverse market segments, from small residential installations to large utility-scale solar farms. The structure is based on successful models in other states, yet allows for the flexibility necessary to fit New York's regulatory structure. The combination of long-term market certainty and competitive pressures means that it will enable the most solar development at the least cost to the ratepayer. Similar programs in other states have been very successful in bringing solar's costs almost to grid parity—incentives in California, for example have declined from \$4.50/W to \$0.65/W in 5 years, and in Arizona, the implementation of a robust program has resulted in about a 50% reduction in average installed costs for residential solar systems (currently about \$4.60/W). The New York Solar Jobs and Development Act is a fair roadmap for jumpstarting a real solar future for the Empire State.

¹ More detail on each of these programs available here: <http://votesolar.org/2010/04/on-the-record/>