The NJ SEF Plan

A Comprehensive Roadmap For A
Sustainable
Energy
Future





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The Coalition for a Sustainable Energy Future

Mindful of threats to our national security, economy and environment, and recognizing the opportunity the NJ Energy Master Plan provides for a public conversation that focuses attention, a core group of individuals and organizations from a wide variety of backgrounds and professional disciplines began an important conversation six months ago. The purpose of that conversation was to create a platform that could galvanize wide-spread public support for sustainable energy in New Jersey, charting a course that offers a viable alternative to Business As Usual inertia.

The NJ Coalition For A Sustainable Energy Future (NJ-SEF) is the result of that dialog. Leadership must come from all sectors of our society to accomplish the next transformation of our energy economy, *as fast and fairly as we can.* This challenge will take decades and there is no "one size fits all" answer. An informed and focused public will be necessary to bolster the work of government, industry and not-for-profits to meet this challenge. But the transition to a sustainable energy infrastructure is a COMMON challenge that will affect all of us, and there are key principals and initiatives upon which most informed stakeholders strongly agree. It is the promotion of these "high impact but widely agreed upon" concepts that the NJ-SEF Coalition is focused.

The Coalition's Five Point NJ SEF Plan serves as a vehicle to inform and focus NJ Citizens on the high level initiatives we need to meet our mandated 2050 goals of 80% reduction of greenhouse gas emissions, and based on that wide base of support, realize the needed policy and marketplace advancements. These solutions also meet the highly strategic goals of eventually eliminating our dependence on fossil fuels, containing runaway costs, and reducing supply vulnerabilities and safety and security risks.

"Who we are" is evolving and growing daily. Below is a list of initial supporters of the coalition plan. We will continue to collect supporters through the end of the year.

Members of the Coalition For A Sustainable Energy Future

American Jewish Committee
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Applied Materials
Association of New Jersey Environmental Commissions (ANJEC)
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Executive Summary

The state of NJ is currently preparing its Energy Master Plan (EMP), which will establish the policy foundation for energy development within the state for the next decade with implications that stretch far beyond. The goals of this plan are shaped by need to balance economic, environmental, and quality of life factors, as well as a formal commitment to reduce CO2 within the state by 80% by 2050.

This document proposes a **New Jersey Sustainable Energy Future (NJ SEF) Plan** that establishes a fundamental new trajectory for New Jersey. By design, this platform focuses on the high impact initiatives that are technically feasible, economically viable, achievable from a policy perspective and address linkages across energy systems (i.e. transportation/electricity/heat) for maximum efficiency. While the plan is not expected to be exhaustive, nor to be a complete prescription for NJ's evolving energy markets, it provides a roadmap that identifies high impact initiatives which if adopted make a big difference. Most importantly, these principals are also a common point of agreement by many stakeholders, and this plan explicitly aspires to identify and promote the key sustainability energy initiatives upon which most people agree.

An informed and focused public will be necessary to bolster the work of government, industry and Not-For-Profits s to meet this challenge. This plan informs and galvanizes NJ Citizens by focusing on five high level initiatives needed to meet our mandated 2050 goals of 80% reduction of greenhouse gas emissions and related goals that eventually eliminate fossil fuel use, control runaway costs, and reduce supply vulnerabilities and safety and security risks.

Use Less: Conservation, Efficiency, and Peak Reduction

Build A Sustainable Electricity Supply

Set Goals To Electrify Transportation

Begin Heating Supply Transition

Ensure Long Term Success

History is rich with examples of achieving goals thought unreachable - once we muster the collective will. This plan serves as a starting point for capturing our imagination and fostering a collective vision of a shared future that improves the quality of lives for

generations that follow here in New Jersey and beyond. Getting this transition right, and ensuring its success, will be one of our most significant accomplishments in this century.

Introduction

Now, more than ever, NJ citizens bear the many costs of an energy infrastructure that is no longer sustainable. Climate change, the pollution of air and water, political and security vulnerabilities, emerging fuel scarcity, and widespread impacts on public health are all clear results of the way we produce and consume energy today. With gas over $4/gallon and rising, oil prices that have increased over 50% in six months, electricity over $0.20/kwhr in the summer, and middle-class families choosing between heating and eating in the winter, the supply of energy from traditional sources has also become unaffordable - now and in the future. Any ONE of those factors would be enough to motivate significant change; taken together, these issues demand a profound and widespread transformation of our energy infrastructure.

The good news is that we have made large transitions in our energy supplies before. Whether it was the transition from wood to coal, whale oil to kerosene, or horses to diesel engines, industrialized society has demonstrated that it can successfully move from exhausted sources to new alternatives. In each case, the transition always appeared painful if not impossible (especially as viewed by the incumbent suppliers), but once completed, each transition enabled massive advancements in society. The American economy now faces the transition from a predominantly fossil-fuel based infrastructure to sustainable alternatives, and although that transition will no doubt be challenging, it represents a chance to create a new and more stable foundation for our economy and our quality of life. Detailed analysis of the NJ energy market demonstrates that a transition to sustainable alternatives is highly feasible and will bring enormous benefit.

The state of NJ is currently preparing its Energy Master Plan (EMP), which will establish the policy foundation for energy development within the state for the next decade. The goals of this plan are shaped by need to balance economic, environmental, and quality of life factors, as well as a formal commitment to reduce CO2 within the state by 80% by 2050. While challenging, this effort represents a huge opportunity to chose the energy future that our children deserve. This document proposes a **NJ Sustainable Energy Future (NJ SEF)** [1] plan that establishes a fundamental new trajectory for NJ's energy future. It provides an alternative to the continuation of Business As Usual (BAU) planning inertia, and provides a roadmap that reduces dependence on traditional but unsustainable energy systems. By design, this platform focuses on the high impact initiatives that are technically feasible, economically viable, and achievable from a policy perspective. Many alternatives have been considered, but the following combination of five interlocking elements is believed to represent a core set of priorities that are supportable by a wide and diverse base of constituents. This plan is not expected to be exhaustive, nor to be a complete prescription for NJ's evolving energy markets. Instead,

[1] The NJ SEF Plan is a joint effort of multiple parties, building on an analysis of the NJ state energy markets and sustainable energy opportunities completed by Mark Warner at the Sun Farm Network.

this roadmap aspires to identify those high impact initiatives which if adopted make a big difference, but which are also a common point of agreement by many stakeholders.

The Sustainable Energy Opportunity

Just over 10,000 years ago, human civilization made the huge leap from the hunting and gathering of food to the domestication of plants and animals through agriculture. The benefits of more efficient, reliable food production provided the foundation for the most profound advancements of civilization. Energy wise, we remain primitive hunter-gatherers, expending a huge and scattered effort to scavenge fossil fuels from wherever they are hidden. As with food, we now have the opportunity to "domesticate our energy supplies", transitioning from a finite base of fuels that are increasingly hard to acquire to the use of sustainable energy flows that can be efficiently, reliably, and economically harvested continuously. The goal of SUSTAINABLE energy is an intentionally broad objective that delivers several key benefits:

- **Clean**: No net generation of CO2 over the full lifecycle of production and consumption, and minimized pollution of air, water, and land.

- **Renewable**: Based on naturally recurring energy flows that don't become scarce as they are used, ensuring continued availability of energy for the long term.

- **Safe, Reliable, and Available**: An infrastructure that provides energy where it is needed, when it is needed, and in the amount needed without risk to the population, society, or the environment.

- **Secure**: Energy assets that minimize dependence on external sources or systems over which NJ has no control, and which reduce vulnerability to physical, economic, or political disruption.

- **Affordable**: Energy supplies which, when measured on their real total cost to NJ citizens, deliver the above attributes at the lowest possible and most stable cost. Minimize vulnerabilities to external economic, environmental (such as weather), and political influences that can increase costs or make them volatile.

Sustainable energy offers an opportunity to create a balance between quality of life, economic growth, and environmental impact. There is a natural tension between these goals, since advancing in one dimension (such as being clean) often comes at the expense of another (such as affordability). Cost factors are the most difficult to evaluate objectively, since there are frequently market structure issues and externalities that make apple-to-apple comparisons difficult. But as evidenced by recent events, the costs of traditional energy sources have now become prohibitively expensive, they are escalating beyond any ability to control, and they are highly volatile. The future cost of sustainable energy solutions must therefore be compared to the **likely future cost** of traditional supply, taking all components of cost into consideration. Within that context, it is highly likely that while sustainable energy supplies may be more expensive than current sources,

they will be less expensive (and more stably priced) than continued use of traditional supplies. **This roadmap therefore envisions an energy future that is sustainable AND the right economic choice for NJ's future**.

NJ SEF Roadmap

The following plan proposes five interlocking elements that provide New Jersey with a **Sustainable Energy Future (NJ SEF)** program.

Use Less: Conservation, Efficiency, and Peak Reduction

There is a large opportunity to reduce the amount of energy used through conservation and efficiency, and to reduce the *peak* demand for electricity. The NJ SEF plan sets specific 2020 goals to reduce NJ's total use of energy below 2006 levels, reduce the peak demand of electricity to no more than 20 GWs, require reductions in the state government's use of energy, and implement a combined heat and power program that produces 10,000 Gwhrs of electricity.

Build A Sustainable Electricity Supply

The NJ SEF plan leverages extensive renewable resources within the state to avoid the need for new traditional plant development and to allow the retirement of less sustainable assets. Key initiatives include reinstatement of the Renewable Portfolio Standard (RPS) goal of 22,500 Gwhrs by 2020, implementation of new programs to encourage in-state development of solar, off-shore wind, and class I & II resources, creation of new programs to more directly guide development of the traditional generation base within the state, and establishing continued growth towards a 40% RPS requirement by 2025.

Set Goals To Electrify Transportation

The expected introduction of electric drive-train vehicles represents a profound opportunity to fundamentally restructure NJ's transportation sector. State initiatives to encourage adoption of this strategic technology include a feebate program, incentive programs for early adoption by fleet vehicles, and state procurement commitments.

Begin Heating Supply Transition

The heating of space and water will begin to move away from an almost exclusive dependence on fossil fuels. Programs will be implemented to encourage the use of solar thermal systems where appropriate, and programs to introduce more stably priced "pipeline quality" bio-methane and bio-diesel (fuel oil) into the heating supply system.

Ensure Long Term Success

The NJ SEF plan includes several specific initiatives intended to ensure that the 2020 goals are only a milestone on the way to the ultimate objective of a sustainable infrastructure by 2050. Specific program elements include strategic technology trials, public outreach and education, job creation and R&D, and monitoring and reporting of program progress with ongoing refinements in the plan as needed.

Use Less: Conservation, Efficiency, and Peak Reduction

From a sustainability perspective, the best energy use is no energy use. Given the artificially low costs of most forms of energy historically, most consumers have developed relatively wasteful habits and efficiency has not been a priority for product developers. There is therefore significant potential for an absolute reduction in the amount of energy consumed within the state, in all its forms. Reductions in consumption are the most cost effective sustainability measures, and improvements in conservation, efficiency, and reductions in peak electricity demand are the foundation of a sustainable energy policy. Given established consumption inertia, however, significant programs are required to realize the potential reductions, as follows:

1. **Use Less**: Establish goals and programs to reduce NJ's total use of energy of all types below 2006 levels by 2020. Programs are required to increase adoption of more efficient lighting and appliances, changes in codes and standards, promotion of net-zero construction, and public awareness and outreach.

2. **Reduce Peak Demand For Electricity**: NJ is more constrained by power requirements than it is by energy, and the peak use of electricity continues to escalate. Establishing goals and programs to reduce the peak-use of electricity to no more than 20 GWs by 2020 has the compound benefit of reducing overall power costs, reducing transmission and distribution system congestion and strain, reducing the need for new generation capacity, and avoiding the use of relatively expensive and polluting peaking plants.

3. **State Leadership**: State and local governments and agencies are large users of energy, and they can make significant advancements in sustainability while setting an example for the communities they serve. The EMP should build on the April 2006 Executive Order from Governor Corzine establishing the Director of Energy Savings, and establish goals and programs that by 2020 will accomplish a) a 25% total energy reduction in government buildings state-wide, b) a 50% reduction in total energy consumption from <u>new</u> government buildings, with 30% of new buildings being of net-zero design by 2020, and c) mandate Government purchases of at least 40% renewable energy, and d) develop model policies and programs and encourage adoption by local governments and agencies.

4. **Combined Heat and Power**: Implement goals and programs that create 1.5GW of distributed Combined Heat and Power (CHP) systems, producing at least 10,000 GHWRs of electricity annually by 2020. Goals and programs should be established to achieve this goal using sustainable fuels where possible, require minimum efficiency and pollution control standards, and to encourage both commercial/industrial and residential CHP technologies as appropriate.

Build A Sustainable Electricity Supply

Electricity is one of the most crucial energy supplies within the state, serving all sectors of the economy in many mission-critical applications. The production of electricity accounts for about a third of total energy usage and 16% of the state's CO2 budget. In 2006, the state required almost 21GW of power at peak time, and almost 76 billion kwhrs of electricity during the year. The current infrastructure is barely keeping pace with this electricity demand, especially the peaking capacity requirements, and that fragile supply/demand balance is under great strain as in-state generation plants are retired over the next decade. Given an old and overloaded transmission network that limits imports and reluctance to build new traditional plants (i.e.fossil fuel plants that emit CO2, or nuclear power plants within highly populated areas), NJ faces a real risk of electricity scarcity and increasing costs. Fortunately, the state has significant renewable energy assets which, if properly developed, could replace all of the existing fossil fuel generation and eventually eliminate the need for development of any traditional power plants within the state. Migrating the NJ generation base away from fossil fuels (with associated CO2 reduction), reducing dependence on imports, and ensuring affordable electricity are only possible with a strong commitment to fully and aggressively developing the renewable energy resources of the state.

Beyond their benefits as clean technologies, renewable energy systems offer two other benefits that are particularly valuable today. Since they don't depend on vulnerable and volatile fossil fuels, especially increasingly expensive Natural Gas, renewable energy plants are becoming not just the lowest cost alternative, but also a stably priced energy supply that is insensitive to Middle East tensions, the whims of dictators, or hurricanes in the Gulf of Mexico. And compared to nuclear plants that can take decades to permit and construct, renewable energy systems can be installed very quickly and relatively unobtrusively. It is highly likely that one GW of solar could be built far faster than a 1GW nuclear plant – and without the safety risks, likely cost escalations, or waste-disposal concerns. Setting a state priority for renewable energy development brings all the benefits of clean and never-ending sustainable energy – AND substantial cost stability and implementation speed and flexibility.

The following plan builds on the Renewable Portfolio Standard (RPS) that is already in place, and strengthens it to build the momentum needed to reach the aggressive 2050 goals.

1. **Reinstate the 2020 RPS to 22,500 Ghwrs**: Recent RPS planning was based on a requirement of 22.5% renewable requirement against a Business As Usual (BAU) projection by 2020 of 100,000 Ghwhrs, resulting in an RPS goal of 22,500 Gwhrs. More recent planning has suggested that the RPS goal be reduced to reflect reductions in total retail demand given efficiency and CHP initiatives. Given the significant risk of electricity shortfall within the state, the risks that both efficiency and CHP goals may not be met, and the aggressive CO2 goals which set MINIMUM reduction targets, **it is highly inappropriate to reduce RPS objectives that have already been established as both achievable and**

affordable. The 2020 RPS goal should be set to an absolute goal of 22,500 Gwhrs, including 2,120 Gwhrs from solar, 17,880 Gwhrs from Class I, and 2,500 Ghwrs from Class II. Clearly reinstating the full RPS commitment by 2020, and reinforcing undilutable goals that don't compete with other programs like efficiency, are crucial for the achieving the state's energy sustainability goals.

2. **Establish Programs To Encourage RPS Generation In The State**: the RPS itself is a good start, but theoretically without additional guidance much of it could come from significantly less desirable imports. The RPS goal must be augmented with specific programs to ensure development of renewable resources within the state, including:

   a) Set an off-shore wind goal of 3,000 MWs, with an expected production of approximately 9,000 Gwhrs.
   b) The Solar Market Development program must be expanded to achieve the solar goal of 2,120 Gwhrs (with expected capacity of approximately 2.0 GW), including i) financing structures that will secure RPS revenues and attract private investment, ii) a re-evaluation of the existing redundant cap structure to focus on protecting rate payer costs (but not limiting absolute capacity amounts) and changes consistent with the 2,120 Gwhr goal, iii) enable Community Solar[2], and iv) implement a "solar field" program that allows land owners to "preserve" their acreage and dedicate it to long term renewable energy generation (that doesn't compete inappropriately with food production), similar to land preservation programs in place today.
   c) Develop new programs to encourage other new in-state class-I development, specifically including on-shore wind, micro-hyrdo, and other ocean generation sources (especially wave power).
   d) Expand overall bio-mass programs, including i) programs to develop new non-waste feedstocks (that don't compete with food), ii) encourage conversion of existing fossil fuel plants to sustainable biomass, iii) explore new Class II non-incineration waste-to-energy technologies, given that much of NJs biomass is waste, and iv) consider expansion of the Class II goals if resources make it feasible.

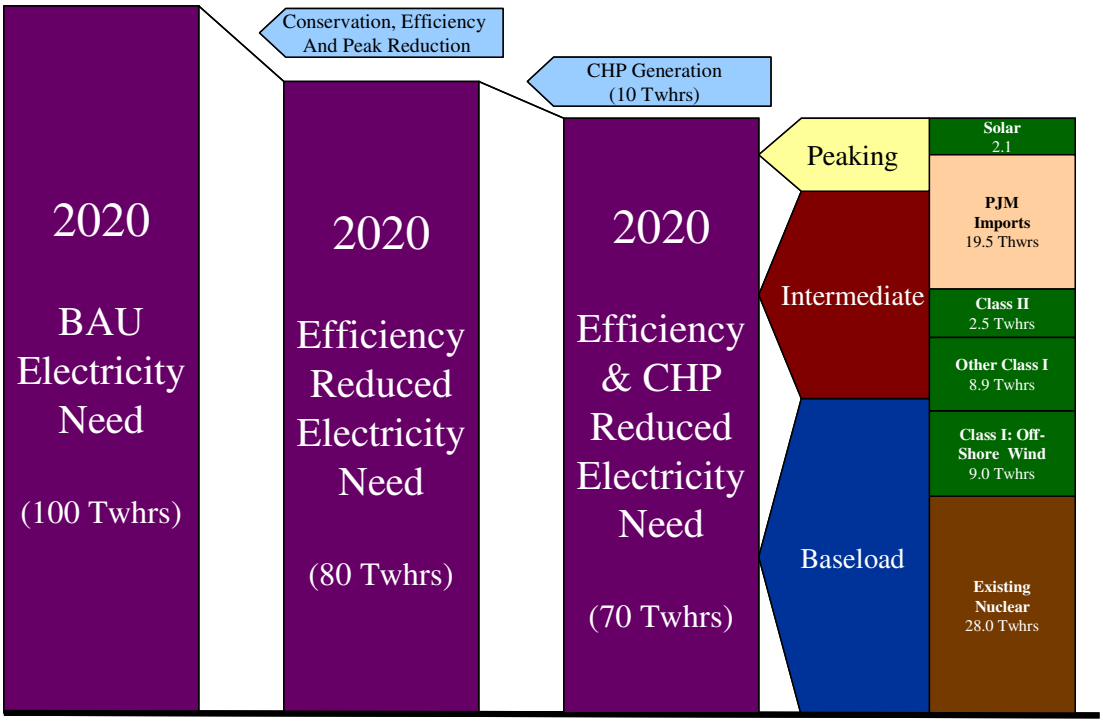
3. **Guide Development Of In-State Generation:** The state currently has limited ability to influence the operation, retirement, or development of traditional plant, particularly with respect to its economic and sustainable energy goals. New authority and methods should be created which help a) encourage the retirement of traditional plants that are due for re-licensing where appropriate, b) limit development of new traditional plants that are inconsistent with state goals as long as renewable alternatives are feasible, and c) foster the conversion of existing

[2] Which includes "multi-site net metering" and customer aggregation concepts that are applicable to most renewable energy sources, and potentially related "micro-grid" solutions. This document refers to "Community Solar" consist with current policy language use, but the same concept should really be extended to a full blown "community energy" architecture.

infrastructure into new incarnations that further state goals, especially the conversion of existing fossil fuel plants to bio-energy plants or storage facilities.

4. **Set A 2025 RPS Goal Of 40%:** As applied against actual consumption, based on 5% distributed solar, 30% Class I (which may include utility-scale transmission-connected solar), and 5% Class II. This plan should include "acceleration mechanisms" so that if the 2025 goal can be achieved earlier, without increasing ratepayer costs, the RPS schedule would be moved up (even advancing the 2020 goals if feasible). This makes the existing cost-limiting cap structure symmetric by allowing both acceleration and deferral of RPS requirements possible depending on actual market economics.

By 2020, this RPS program would allow the retirement or conversion of most of the state's existing fossil fuel generation base, a reduction of imports, and creation of the commercialization momentum needed for renewable energy to play an even larger role in the 2050 sustainability framework. The following diagram summarizes the net impact of the previous efficiency/CHP goals and the introduction of 22.5 Ghwrs of renewables into the state's supply. Note that the use of fossil fuels or the development of additional traditional plant (in the state) is not needed.



Note: Assumes the retirement of Oyster Creek Nuclear Plant, and does not reflect impact of transportation electrification

Set Goals To Electrify Transportation

The use of petroleum to fuel transportation, especially passenger travel, is one of the most onerous components of the NJ energy portfolio. Petroleum is a strategically vulnerable resource whose costs are increasing dramatically and uncontrollably. Current transportation systems are heavily dependent on petroleum as a sole source, including significant imports from hostile sources. Automobile Internal Combustion (IC) engines are among the most inefficient, typically capturing only 15% of the fuel's energy content. The use of petroleum for transportation is also the largest single component of the NJ CO2 budget, by far. Achieving the sustainability goals of affordability and CO2 reduction (among other objectives) cannot be accomplished without substantial progress in restructuring how energy is used by the transportation sector, and specifically reducing the current dependence on petroleum fuel.

Fortunately, supplying cars with their daily energy needs is a highly solvable problem given the emerging availability of electric drive-train vehicles and relatively rapid turn-over rates of small vehicles (compared, for example, to power plants). Pluggable hybrids, in particular, offer an excellent migration platform that can fuel the majority of passenger travel with electricity without any sacrifice in quality, style, convenience or range. The widespread adoption of pluggable hybrids builds upon the development of a sustainable electricity supply, introduces fundamental improvements in efficiency, and reduced operating costs for the vehicle owner. With electricity as the "fuel", transportation also becomes highly diversified, able to run on almost anything that produces electricity. This is a dramatic advancement over the current "sole source" dependence on petroleum, and a primary reason why electrically fueled vehicles are highly strategic. Note that adoption of pluggable hybrids could also provide reliability improvements for the residential sector since the car becomes a back-up generator for the home. Given the extraordinary increase in recent fuel costs, pluggable hybrids, along with alternative-fuel vehicles, all electric vehicles, and higher mpg vehicles, are expected to be commercially available over the next few years, with widespread deployment projected to ramp-up starting in calendar year 2010.

A broader transportation plan is under development by the state, and will likely include more general priorities for infrastructure development, smart growth, and increased use of public transportation. But the Energy Master Plan should specifically include provisions to promote the adoption of increased efficiency and electric drive-train vehicles, since they have a profound impact on the rest of the energy architecture and key goals (especially CO2 reduction). The EMP should include:

1. **Feebate**: A revenue-neutral plan that increases annual registration costs for less preferred (low MPG, carbon intensive) vehicles to fund rebates for preferred technologies (higher MPG, alternative fuels, with special emphasis on pluggable hybrids). A 2020 goal of 10% of passenger Vehicle Miles Traveled fueled electrically should be adopted as the design goal for the program.

2. **Non-Passenger Transport**: Goals and programs should also be adopted to encourage the introduction and adoption of electric drive-trains for other transportation segments that would benefit, especially public buses, short-haul delivery vehicles, and fleet vehicles.

3. **State Commitments**: The state and local governments and agencies can also provide significant leadership and market support during early introduction of these technologies. Government should commit to purchasing the most efficient vehicle on the market, with a priority for electrically fueled and alternative-fuel vehicles. Making these commitments in advance of market introduction can significantly influence market planning by manufacturers.

Begin Heating Supply Transition

In many ways, the heating of space and water is one of the most challenging parts of the overall energy architecture. It is a significant part of NJ's energy consumption – about 15% of its total energy, and over 18% of its CO2 budget. Most heating units are already relatively efficient (60-90%, compared with 15% for a car engine, or 30% average for a power plant), and make use of the cleanest of fossil fuels (mostly natural gas and LP). Significant improvements (above those captured under efficiency above) are therefore difficult. Given the heavy dependence on Natural Gas, however, and its increasing price and uncontrollable volatility, space and water heating have become an unacceptable economic burden to many NJ families and a significant fraction of their annual energy budget. Reducing heating costs is a very high priority for most NJ citizens.

Long term, the heating of space and water must migrate to a non-fossil fuel basis. As the supply of electricity become more affordable and sustainable, it will make sense for more consumers to migrate to electric heating, especially new radiant heat systems that are both comfortable and efficient. This transition will likely happen naturally based on its benefits. But this transition will depend upon first achieving success in the build-out of a more sustainable supply of electricity.

Meanwhile, fuel-based heating will remain a dominant form given the inherent efficiency and convenience of its massive installed base, and fuel-based heating will likely be a key solution long term. The primary migration path is therefore to replace current fossil-fuel based sources of heating-fuel with more sustainable alternatives. The NJ SEF plan includes several initiatives to establish goals and programs that begin this migration:

1. **Solar Thermal**: The collection and use of solar heat, especially for hot water applications where appropriate.

2. **Bio-Methane**: The in-state production of pipeline quality bio-substitutes for Natural Gas, introduced into the general supply up to AT LEAST 5% of consumption by 2020.

3. **Bio-Diesel**: The in-state production of bio-diesel, up to AT LEAST 5% of consumption by 2020.

Ensure Long Term Success

The 2020 goals are only a milestone on the way to the more challenging sustainability objectives of 2050. The NJ SEF plan therefore includes a variety of foundation programs that create the momentum needed for long term success:

1. **Strategic Technology Trials**: There are several technologies that are just emerging, but which are critical to the 2050 renewable energy goals. Aggressive commercialization trials are needed to prove these technologies enough to allow economic scale-up between 2020 and 2050:
    a. Large scale electricity storage
    b. Wave energy capture and conversion to electricity
    c. Waste to energy conversion (either fuels or electricity)
    d. In-state generation of bio-methane, especially for heating
    e. Smartgrid technology, supporting distributed intermittent generation

2. **Public Outreach:** In order to generate the level of public commitment needed to assure an historic transition to a new sustainable energy paradigm, public outreach should be modeled on a total societal commitment, such as that which mobilized American society to meet the challenges of World War II. A sustained and meaningful dialog is needed, not just a short lived PR campaign.

3. **Engage The Education System**

4. **Invest in CleanTech R&D and Green Collar Jobs**

5. **Monitoring and Reporting**: A detailed monitoring program must be established to track the success of the EMP against long term goals and intermediate milestones. These results should be reported to the public periodically, and revisions in the plan made to ensure success.

A Call To Action

The **NJ SEF Plan** is not intended to be exhaustive program that excludes other priorities that may also be needed. Instead, it represents a core set of strategic initiatives that tackle the highest impact objectives and for which there is a broad base of agreement. This plan identifies key programs which, if successful, create a new trajectory towards an energy future that is clean, renewable, and affordable compared with continued dependence on traditional supplies.

This plan should be adopted because reducing NJ's dependence on the resources of other nations is the ethical, economic, environmental, and politically responsible choice. This program will make the lives of NJ citizens better in every way – energy will become cheaper, more secure, and with dramatically reduced impacts from carbon and other pollutants. But most of all, it is our children that will benefit the most, and we owe it to them to provide an energy future that supports the affordable quality of life and security that they deserve. This future is within our grasp – we need only to choose it, and follow-through decisively, to make it a reality.