

New Jersey Energy Master Plan Strategies



As part of the Energy Master Plan process, RPP submitted four strategies, as well as participating in the working group meetings. Go to www.nj.gov/emp find out more about the process.

RPP Strategy #1

The State should provide local municipalities with either model energy-related zoning ordinances or planning grants to develop local energy-related ordinances that would be pooled into a statewide database. These energy-related ordinances would promote energy conservation through construction materials, green building design, subdivision design, infill incentives, street patterns, distributed generation (especially alternative energy) incentives, or other techniques that have been shown to reduce energy use.

Energy-efficient model zoning will assist implementation of RPP Strategy #2, 3, and 4.

Responsible Party

All State agencies, with the Office of Smart Growth and the BPU coordinating efforts.

Timeline of action

12 months to pool together existing ideas from the State Plan, existing ordinances, and other sources. RPP has already done much of this work.

Strategy outcome

There are two main outcomes, the first of which is faster statewide implementation and adoption of energy-efficient ordinances. By taking a leadership role, the State can make adoption of these ordinances much easier by performing the “leg-work” of collecting a diverse set of ideas. Municipal officials have limited time and resources to develop new ideas on their own, and existing practices should be disseminated as quickly as possible to avoid “re-inventing the wheel.”

Second, the adoption of these ordinances will have powerful effects, not just on air quality, but also on other State goals. Different land use patterns can improve groundwater protection, as well as improve access to jobs and generate additional affordable housing. They are limited only by the willingness to harness their potential.

Implementation cost

Staff time to pool together existing ideas from the State Plan, existing ordinances, and other sources. RPP has already done much of this work.

Source of Funding

Current agency appropriations.

Indicators

Source

Number of model ordinances in State database

BPU, State Plan

RPP Strategy #2

In the same way that NJDEP provides information on where environmental features and constraints exist, NJDOT can provide information on where transportation features and constraints exist. This inventory can then inform where transportation opportunities exist. In conjunction with other State agencies, the NJDOT should delineate these opportunities and establish priority transportation corridors and incorporate them into their long range planning and corridor studies. Scenic and historic designation should be part of this exercise. One important method to delineate corridors will utilize NJTransit’s “Transit Score.”

Inside these priority corridors, NJDOT and NJTransit will offer increased development incentives, along with commensurate decreased incentives outside these corridors. These corridors will dictate where new capacity – both highway and rail - will be located. Outside these areas funds will be spent to maintain and repair road without expanding capacity.

Priority corridors can be used as the basis for setting the vehicle trip goal in RPP Strategy #3.

Responsible Party

NJDOT

Timeline of action

Within 12 months NJDOT/NJTransit will establish priority transportation corridors. These corridors will be updated in conjunction with the Long Range Master Plan renewal in a process similar to the Energy Master Plan, except with NJDOT as chair.

Strategy outcome

Establishing priority corridors will enable targeted capital investment by NJDOT, NJTransit, and other State agencies, as well as encourage land use densities that support the corridor designation. Current funding patterns lack this strategic component. Total transit ridership will grow more than it would under existing conditions, as will the number of transit villages.

These corridors will also enable other State agencies to grant permits to projects that support this goal through centered development, employer transit commitments, and shuttle or bus services, while discouraging development projects that impair DOT’s ability to provide a safe and efficient transportation system.

A proportional increase in transit use will promote clean air goals, as well as reduce/control congestion. Watershed protection can be increased along with protecting significant areas of natural habitat outside priority transit corridors. In turn, these changes will promote a higher quality of life and increased economic opportunity in New Jersey that would not be possible without their presence.

In addition, the development patterns this policy supports are also beneficial to other energy savings objectives. Centered development tends to support smaller housing units, which need less energy to heat and cool. Reducing trips from trend projections reduces fuel consumption, one of the main State energy uses.

Implementation cost

Staff time to analyze potential boundary and incentive details, and to update and maintain them every ten years. Implementation can be expedited due to the existence of the NJTransit Transit Score.

Source of Funding

Current agency appropriations.

<u>Indicators</u>	<u>Source</u>
<i>Transit Score (Already developed)</i>	<i>NJTransit</i>

RPP Strategy #3

Working with other State agencies, NJDOT should establish a State goal for the number of vehicle trips they would like to see decreased or shifted to other modes of transit by 2020 and 2050. While the goal may or may not represent an absolute reduction of current trip levels, it will certainly represent a reduction in the growth rate. This goal will not be a mandatory target that the agency must meet solely through its own actions; rather, the goal will serve to establish other goals so that working together, State agencies can meet the trip reduction goal. Shifting a proportion of vehicle trips to other modes of travel will help manage the system that NJDOT operates, but they are not able accomplish this change on their own. Achieving this goal will require a combination of supportive legislation, agency policies and permits, and also local land use decisions.

While the vehicle trip goal will recognize needed increases in vehicle traffic to support increased economic activity, it will begin with the understanding that NJDOT has the responsibility to provide a well functioning and safe transportation system to the entire State, especially in light of the billions of taxpayers' dollars it spends every year. NJDOT possesses the technical skills to make this target meaningful, and can assist other agencies in finding mutually supporting ways to meet the goal.

Using the priority transportation corridors created in RPP Strategy #2, the vehicle trip goal can inform the Planning Calculator process in RPP Strategy #4. Ideas for local implementation of energy-efficiency can be found in RPP Strategy #1.

Responsible Party

NJDOT

Timeline of action

Within one year DOT will establish a 2020 and 2050 goal. In 2020, they will adjust the 2050 goal, if necessary, and set a 2075 goal.

Strategy outcome

The existence of this goal will enable targeted capital investment, land use planning and policy development by NJDOT, NJTransit, and other State agencies.

This goal will also enable State agencies to grant permits to projects that support this goal through centered development, employer transit commitments, and shuttle or bus services, while discouraging development projects that impair DOT's ability to provide a safe and efficient transportation system.

Vehicle trip reduction will promote clean air goals, as well as reduce/control congestion. In turn, these changes will promote a higher quality of life and increased economic opportunity in New Jersey that would not be possible without their presence.

In addition, the development patterns this policy supports are also beneficial to other energy savings objectives. Reducing trips from trend projections reduces fuel consumption, one of the main State energy uses. But centered development also tends to support smaller housing units, which need less energy to heat and cool.

Implementation cost

Staff time to develop and implement goal. Some staff time in the future to update and refine goal setting process.

Source of Funding

Current agency appropriations.

Indicators

Source

Transit Ridership

NJ Transit

Mode of Travel

Census

RPP Strategy #4

Using the priority transportation corridors and vehicle trip goal established in RPP's Strategy #2 & 3, the State should allocate emission reduction goals to each county. Emissions should be allocated based on a method that takes local vehicle traffic into account, such as the Greenhouse Calculator from RPP. The State needs a fair but simple method to distribute responsibility, since local government has the authority to make the land use decisions that significantly drive vehicle congestion and air quality. VMT from local development is the missing link in the SIP-TIP process, and weaken its effectiveness.

Each county would then facilitate agreement among its municipalities on how they will commit to reducing emissions to meet the county target. Emission reduction strategies may include land use decisions such as subdivision and street pattern design, efficient government vehicle fleets, construction or other green building ordinances, landfill emission capture, or other local government decisions with air quality impacts. An important source of energy-efficient ideas would come from the model zoning database created in RPP Strategy #1.

Responsible Party

Office of the Governor, Office of Smart Growth, County Government

Timeline of action

12 months to put together a process manual that would include suggested municipal best practices for reducing emissions, to educate county and local governments on the process, and to calculate individual county responsibilities. Much of this work has already been done by RPP.

Strategy outcome

Though this process may not have a large, immediate reduction in emissions, it does provide the foundation for much larger long-term reductions. These reductions occur through local governments - within a county - working together on actions that support a State goal. In addition, it is likely that through working together, other significant coordination and efficiencies can be developed.

Also, several of the land use strategies to control or reduce emissions under local government jurisdiction have other significant side benefits. While more efficient vehicles improve air quality, they do nothing for congestion, conserving electricity, reducing concentrations of poverty or improving groundwater quality. Land use decisions, however, have powerful impacts on all of these things and more. Little else can provide the diversity and magnitude of multiple benefits at similar cost than changing land use patterns would achieve. In addition, land use benefits grow over time, while new vehicles must be continually purchased.

This process harnesses the authority of Home Rule into coordinated decision making that brings local government in as a partner in achieving State goals.

Implementation cost

Staff time to put together a process manual that would include suggested municipal best practices for reducing emissions, to educate county and local governments on the process, and to calculate individual county responsibilities. Much of this work has already been done by RPP.

Source of Funding

Current agency appropriations.

Indicators

Source

Vehicle Miles Traveled by County

NJDOT

<http://www.state.nj.us/transportation/refdata/roadway/vmt.shtm>